

STRUCTURE SEARCH

=&gt; d his 176

(FILE 'AGRICOLA, BIOSIS, EMBASE' ENTERED AT 17:46:29 ON 01 OCT 2009)

SAV TEMP L75 KAU467MULT/A

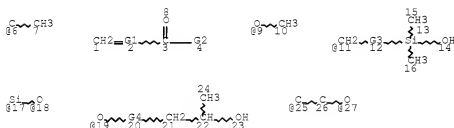
FILE 'HCAPLUS' ENTERED AT 17:48:56 ON 01 OCT 2009

L76 38 S L66 OR L67

=&gt; d que 176

L2 24 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON (117428-22-5/  
 BI OR 131860-33-8/BI OR 153719-23-4/BI OR 155569-91-8/BI  
 I OR 1897-45-6/BI OR 478813-84-2/BI OR 478813-85-3/BI  
 OR 478813-86-4/BI OR 478813-89-7/BI OR 478813-93-3/BI  
 OR 478813-94-4/BI OR 478813-97-7/BI OR 478813-99-9/BI  
 OR 478932-53-5/BI OR 709672-75-3/BI OR 709672-76-4/BI  
 OR 709672-77-5/BI OR 709672-78-6/BI OR 709673-62-1/BI  
 OR 709673-65-4/BI OR 709673-68-7/BI OR 709673-70-1/BI  
 OR 709673-72-3/BI OR 71751-41-2/BI)

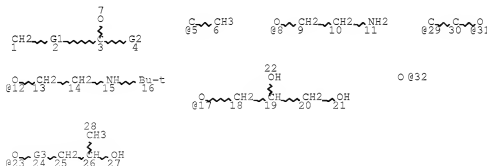
L4 STR



VAR G1=CH/6  
 VAR G2=9/11/19  
 REP G3=(10-11) 17-11 18-13  
 REP G4=(4-20) 25-19 27-21  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 26

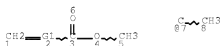
STEREO ATTRIBUTES: NONE  
 L6 STR



VAR G1=CH/5  
 VAR G2=32/8/12/17/23  
 REP G3=(4-20) 29-23 31-25  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 32  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 32

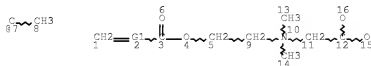
STEREO ATTRIBUTES: NONE  
 L8 SCR 2043  
 L11 92835 SEA FILE=REGISTRY SSS FUL L4 AND L8  
 L14 40884 SEA FILE=REGISTRY SUB=L11 SSS FUL L6  
 L20 STR



VAR G1=CH/7  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 8

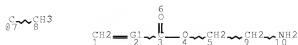
STEREO ATTRIBUTES: NONE  
 L21 STR



VAR G1=CH/7  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 15  
 CONNECT IS E1 RC AT 16  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE  
 L22 STR

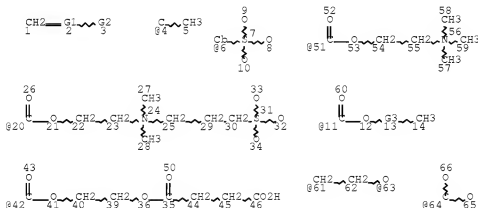


# 10/537,467-310163-EIC SEARCH

VAR G1=CH/7  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE  
 L23 STR



VAR G1=CH/4  
 VAR G2=6/51/20/11/42/64  
 REP G3=(5-20) 61-12 63-14  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 8  
 CONNECT IS E1 RC AT 9  
 CONNECT IS E1 RC AT 10  
 CONNECT IS E1 RC AT 32  
 CONNECT IS E1 RC AT 33  
 CONNECT IS E1 RC AT 34  
 CONNECT IS E3 RC AT 64  
 CONNECT IS E1 RC AT 65  
 CONNECT IS E1 RC AT 66  
 DEFAULT MLEVEL IS ATOM  
 GGCAAT IS UNS AT 6  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS E6 C AT 6

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 56

STEREO ATTRIBUTES: NONE

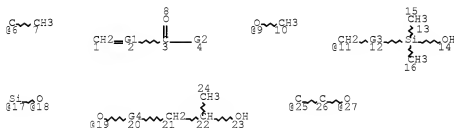
L25 37140 SEA FILE=REGISTRY SUB=L14 SSS FUL L23  
 L26 7 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L25 AND L2  
 L30 199 SEA FILE=REGISTRY SUB=L11 SSS FUL L20 AND L22  
 L31 5 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND L30  
 L37 30 SEA FILE=REGISTRY SUB=L11 SSS FUL L21  
 L43 64 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L37  
 L45 312637 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON AGROCHEM?/SC, S  
 X  
 L46 2 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L43 AND L45  
 L47 2 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L31  
 L48 113 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L30  
 L49 2 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L26

# 10/537,467-310163-EIC SEARCH

L50 37641 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L25  
 L51 4 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L48 AND L45  
 L52 284 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L50 AND L45  
 L53 2 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L49 AND L45  
 L54 4 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L46 OR L47)  
 OR L51 OR L53  
 L55 QUE SPE=ON ABB=ON PLU=ON SUSPEN? OR DISPERS? OR COL  
 LOID? OR EMULS? OR MICROEMULS? OR SLURR?  
 L56 121 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L52 AND L55  
 L57 QUE SPE=ON ABB=ON PLU=ON AQUEOUS OR (WATER OR H2O) (  
 2A) SOLUBLE  
 L58 49 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L56 AND L57  
 L59 52 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L54 OR L58  
 L60 QUE SPE=ON ABB=ON PLU=ON PY=<2003 NOT P/DT  
 L61 1 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L59 AND L60  
 L62 QUE SPE=ON ABB=ON PLU=ON (PY=<2003 OR PRY=<2003 OR  
 AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT  
 L63 34 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L58 AND L62  
 L64 35 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L63 OR L61  
 L65 1 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L64 AND L54  
 L66 4 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L65 OR L54  
 L67 34 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L64 NOT L66  
 L76 38 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L66 OR L67

=> d que 175

L2 24 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON (117428-22-5/  
 BI OR 131860-33-8/BI OR 153719-23-4/BI OR 155569-91-8/B  
 I OR 1897-45-6/BI OR 478813-84-2/BI OR 478813-85-3/BI  
 OR 478813-86-4/BI OR 478813-89-7/BI OR 478813-93-3/BI  
 OR 478813-94-4/BI OR 478813-97-7/BI OR 478813-99-9/BI  
 OR 478932-53-5/BI OR 709672-75-3/BI OR 709672-76-4/BI  
 OR 709672-77-5/BI OR 709672-78-6/BI OR 709673-62-1/BI  
 OR 709673-65-4/BI OR 709673-68-7/BI OR 709673-70-1/BI  
 OR 709673-72-3/BI OR 71751-41-2/BI)  
 L4 STR

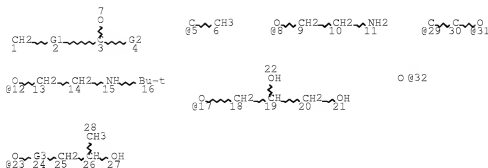


VAR G1=CH/6  
 VAR G2=9/11/19  
 REP G3=(10-11) 17-11 18-13  
 REP G4=(4-20) 25-19 27-21  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE  
 L6 STR

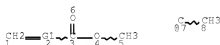
## 10/537,467-310163-EIC SEARCH



VAR G1=CH/5  
 VAR G2=32/8/12/17/23  
 REP G3=(4-20) 29-23 31-25  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 32  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 32

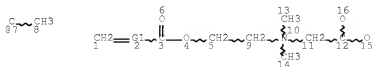
STEREO ATTRIBUTES: NONE  
 L8 SCR 2043  
 L11 92835 SEA FILE=REGISTRY SSS FUL L4 AND L8  
 L14 40884 SEA FILE=REGISTRY SUB=L11 SSS FUL L6  
 L15 10 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND L14  
 L20 STR



VAR G1=CH/7  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE  
 L21 STR



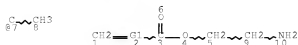
VAR G1=CH/7  
 NODE ATTRIBUTES:

# 10/537,467-310163-EIC SEARCH

CONNECT IS E1 RC AT 15  
CONNECT IS E1 RC AT 16  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 16

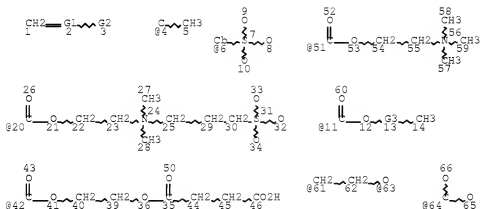
STEREO ATTRIBUTES: NONE  
L22 STR



VAR G1=CH/7  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE  
L23 STR



VAR G1=CH/4  
VAR G2=6/51/20/11/42/64  
REP G3=(5-20) 61-12 63-14  
NODE ATTRIBUTES:  
CONNECT IS E1 RC AT 8  
CONNECT IS E1 RC AT 9  
CONNECT IS E1 RC AT 10  
CONNECT IS E1 RC AT 32  
CONNECT IS E1 RC AT 33  
CONNECT IS E1 RC AT 34  
CONNECT IS E3 RC AT 64  
CONNECT IS E1 RC AT 65  
CONNECT IS E1 RC AT 66  
DEFAULT MLEVEL IS ATOM  
GGCAT IS UNS AT 6  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS E6 C AT 6

# 10/537,467-310163-EIC SEARCH

GRAPH ATTRIBUTES:

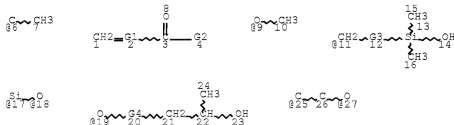
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 56

STEREO ATTRIBUTES: NONE

L25 37140 SEA FILE=REGISTRY SUB=L14 SSS FUL L23  
L30 199 SEA FILE=REGISTRY SUB=L11 SSS FUL L20 AND L22  
L31 5 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND L30  
L37 30 SEA FILE=REGISTRY SUB=L11 SSS FUL L21  
L39 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND L37  
L40 11 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L37 AND L25  
L55 QUE SPE=ON ABB=ON PLU=ON SUSPEN? OR DISPERS? OR COL  
LOID? OR EMULG? OR MICROEMULS? OR SLURR?  
L60 QUE SPE=ON ABB=ON PLU=ON PY=<2003 NOT P/DT  
L62 QUE SPE=ON ABB=ON PLU=ON (PY=<2003 OR PRY=<2003 OR  
AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT  
L68 229 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L39 OR L40  
OR L37 OR L31 OR L30  
L69 37267 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L68 OR L25  
OR L15  
L70 18 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L69 AND  
(AGRICOLA/LC OR BIOSIS/LC OR EMBASE/LC)  
L71 161 SEA L70  
L72 24 SEA L71 AND L55  
L73 10 SEA L72 AND L60  
L74 0 SEA L72 AND L62  
L75 10 SEA L73 OR L74

=> d que 175

L2 24 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON (117428-22-5/  
BI OR 131860-33-8/BI OR 153719-23-4/BI OR 155569-91-8/B  
I OR 1897-45-6/BI OR 478813-84-2/BI OR 478813-85-3/BI  
OR 478813-86-4/BI OR 478813-89-7/BI OR 478813-93-3/BI  
OR 478813-94-4/BI OR 478813-97-7/BI OR 478813-99-9/BI  
OR 478932-53-5/BI OR 709672-75-3/BI OR 709672-76-4/BI  
OR 709672-77-5/BI OR 709672-78-6/BI OR 709673-62-1/BI  
OR 709673-65-4/BI OR 709673-68-7/BI OR 709673-70-1/BI  
OR 709673-72-3/BI OR 71751-41-2/BI)  
L4 STR



VAR G1=CH/6

VAR G2=9/11/19

REP G3=(10-11) 17-11 18-13

REP G4=(4-20) 25-19 27-21

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

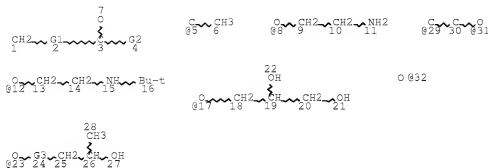
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE

## 10/537,467-310163-EIC SEARCH

L6

STR

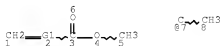


VAR G1=CH/5  
 VAR G2=32/8/12/17/23  
 REP G3=(4-20) 29-23 31-25  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 32  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE

L8 SCR 2043  
 L11 92835 SEA FILE=REGISTRY SSS FUL L4 AND L8  
 L14 40884 SEA FILE=REGISTRY SUB=L11 SSS FUL L6  
 L15 10 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND L14  
 L20 STR

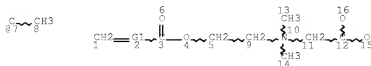


VAR G1=CH/7  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L21 STR



VAR G1=CH/7



## 10/537,467-310163-EIC SEARCH

## NODE ATTRIBUTES:

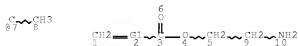
CONNECT IS E1 RC AT 15  
 CONNECT IS E1 RC AT 16  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ELEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 16

## STEREO ATTRIBUTES: NONE

L22 STR



VAR G1=CH/7

## NODE ATTRIBUTES:

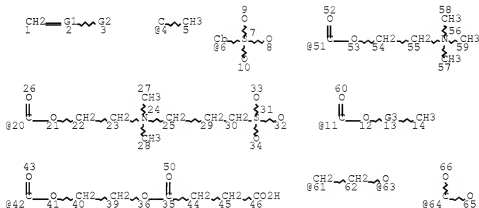
DEFAULT MLEVEL IS ATOM  
 DEFAULT ELEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 10

## STEREO ATTRIBUTES: NONE

L23 STR



VAR G1=CH/4

VAR G2=6/51/20/11/42/64

REP G3=(5-20) 61-12 63-14

## NODE ATTRIBUTES:

CONNECT IS E1 RC AT 8  
 CONNECT IS E1 RC AT 9  
 CONNECT IS E1 RC AT 10  
 CONNECT IS E1 RC AT 32  
 CONNECT IS E1 RC AT 33  
 CONNECT IS E1 RC AT 34  
 CONNECT IS E3 RC AT 64  
 CONNECT IS E1 RC AT 65  
 CONNECT IS E1 RC AT 66  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS UNS AT 6  
 DEFAULT ELEVEL IS LIMITED  
 ECOUNT IS E6 C AT 6

# 10/537,467-310163-EIC SEARCH

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 56

STEREO ATTRIBUTES: NONE

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L25      37140 SEA FILE=REGISTRY SUB=L14 SSS FUL L23
L30      199 SEA FILE=REGISTRY SUB=L11 SSS FUL L20 AND L22
L31      5 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND L30
L37      30 SEA FILE=REGISTRY SUB=L11 SSS FUL L21
L39      1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND L37
L40      11 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L37 AND L25
L55      QUE SPE=ON ABB=ON PLU=ON SUSPEN? OR DISPERS? OR COL
          LOID? OR EMULG? OR MICROEMULS? OR SLURR?
L60      QUE SPE=ON ABB=ON PLU=ON PY=<2003 NOT P/DT
L62      QUE SPE=ON ABB=ON PLU=ON (PY=<2003 OR PRY=<2003 OR
          AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT
L68      229 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L39 OR L40
          OR L37 OR L31 OR L30
L69      37267 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L68 OR L25
          OR L15
L70      18 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L69 AND
          (AGRICOLA/LC OR BIOSIS/LC OR EMBASE/LC)
L71      161 SEA L70
L72      24 SEA L71 AND L55
L73      10 SEA L72 AND L60
L74      0 SEA L72 AND L62
L75      10 SEA L73 OR L74
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=> dup rem 176 175

FILE 'HCAPLUS' ENTERED AT 17:50:21 ON 01 OCT 2009  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 17:50:21 ON 01 OCT 2009  
Copyright (c) 2009 The Thomson Corporation  
PROCESSING COMPLETED FOR L76  
PROCESSING COMPLETED FOR L75  
L77 48 DUP REM L76 L75 (0 DUPLICATES REMOVED)  
 ANSWERS '1-38' FROM FILE HCAPLUS  
 ANSWERS '39-48' FROM FILE BIOSIS

STRUCTURE SEARCH RESULTS

=&gt; d 177 1-38 ibib ed abs hitstr hitind

L77 ANSWER 1 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2005:470205 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143:2615  
 TITLE: Fungicidal aqueous suspension concentrate  
 INVENTOR(S): Kang, Kyung-Goo; Kim, Tae-Young; Kim, Dal-Soo; Chun, Sam-Jae  
 PATENT ASSIGNEE(S): Lg Life Sciences Ltd., S. Korea; Joe, Goon-Ho  
 SOURCE: PCT Int. Appl., 19 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE         |
|---------------|------|----------|-----------------|--------------|
| WO 2005048707 | A1   | 20050602 | WO 2004-KR2979  | 2004<br>1117 |

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 2004  
1117

ED Entered STN: 02 Jun 2005

AB The invention relates to a stable aqueous suspension concentrate composition which comprises one or more fungicides and water-soluble or water-dispersible polyoxyalkylene alkyl ether, which does not form gel in the preparation process, and does not form cake during storage. The stable suspension concentrate is characterized in using appropriate water-soluble solvent to act as anti-gelling and anti-caking agent and an appropriate dispersant.

IT 125770-20-9, Tersperse 2500

RL: MOA (Modifier or additive use); USES (Uses)  
 (dispersant; fungicidal aqueous)

# 10/537,467-310163-EIC SEARCH

suspension concentrate)  
 RN 125770-20-9 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with methyl  
 2-methyl-2-propenoate and oxirane, graft (CA INDEX NAME)

CM 1

CRN 80-62-6  
 CMF C5 H8 O2



CM 2

CRN 79-41-4  
 CMF C4 H6 O2



CM 3

CRN 75-21-8  
 CMF C2 H4 O



IC ICM A01N025-04  
 CC 5-2 (Agrochemical Bioregulators)  
 ST fungicide aq suspension conc  
 IT Fungicides  
 Pesticide formulations  
 (fungicidal aqueous suspension concentrate)  
 IT 9004-95-9, Konion CA 12  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (Konion CA 12, anti-gelling and anti-caking agent; fungicidal  
 aqueous suspension concentrate)  
 IT 9005-00-9, Konion SA 10  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (Konion SA 10, anti-gelling and anti-caking agent; fungicidal  
 aqueous suspension concentrate)  
 IT 57-55-6, Propylene glycol, uses 107-21-1, Ethylene glycol, uses  
 111-46-6, Diethylene glycol, uses 9004-98-2, Konion OA 12  
 25265-71-8, Dipropylene glycol  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (anti-gelling and anti-caking agent; fungicidal aqueous  
 suspension concentrate)  
 IT 125770-20-9, Tersperse 2500  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dispersant; fungicidal aqueous  
 suspension concentrate)

# 10/537,467-310163-EIC SEARCH

IT 1897-45-6, Chlorothalonil 25606-41-1, Propamocarb hydrochloride  
 36734-19-7, Iprodione 68694-11-1, Triflumizole 70630-17-0,  
 Metalaxyl-M 107534-96-3, Tebuconazole 110235-47-7, Mepanipyrim  
 110488-70-5, Dimethomorph 119446-68-3, Difenoconazole  
 120116-88-3, Cyazofamid 125116-23-6, Metconazole 131807-57-3,  
 Fomoxadone 131860-33-8, Azoxystrobin 136426-54-5,  
 Fluquinconazole 140923-17-7, Iprovalicarb 141517-21-7,  
 Trifloxystrobin 143390-89-0, Kresoxim-methyl 156052-68-5,  
 Zoxamide 162650-77-3, Ethaboxam  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (fungicidal aqueous suspension concentrate)  
 IT 577-11-7, Empimin OP 70  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (wetting agent; fungicidal aqueous suspension  
 concentrate)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L77 ANSWER 2 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 2004:513445 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:66712  
 TITLE: Particulate agrochemical suspensions  
 with polymeric stabilizers  
 INVENTOR(S): Heming, Alexander Mark; Shirley, Ian Malcolm;  
 Winn, Peter David  
 PATENT ASSIGNEE(S): Syngenta Limited, UK  
 SOURCE: PCT Int. Appl., 48 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|---|------|----------|-----------------|--------------|
| WO 2004052099   | A2   | 20040624 | WO 2003-GB5291  | 2003<br>1205 |
| <--   |      |          |                 |              |
| WO 2004052099   | A3   | 20040916 |                 |              |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,<br>CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,<br>ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,<br>KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,<br>MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,<br>RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT,<br>TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW<br>RW: BW, GH, GM, KE, LS, MN, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,<br>AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY,<br>CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,<br>NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,<br>GH, GQ, GW, ML, MR, NE, SN, TD, TG |      |          |                 |              |
| CA 2508553  | A1   | 20040624 | CA 2003-2508553 | 2003<br>1205 |
| <--   |      |          |                 |              |
| AU 2003292383   | A1   | 20040630 | AU 2003-292383  | 2003<br>1205 |
| <--   |      |          |                 |              |
| AU 2003292383   | B2   | 20071220 |                 |              |
| EP 1569512  | A2   | 20050907 | EP 2003-767960  | 2003<br>1205 |
| <--   |      |          |                 |              |

# 10/537,467-310163-EIC SEARCH

|   |   |          |                  |                   |
|---|---|----------|------------------|-------------------|
| EP 1569512  | B1  | 20070228 |                  |                   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |   |          |                  |                   |
| BR 2003016838   | A   | 20051018 | BR 2003-16838    | 2003<br>1205      |
|   |   |          | <---             |                   |
| CN 1744815  | A   | 20060308 | CN 2003-80109342 | 2003<br>1205      |
|   |   |          | <---             |                   |
| AT 354955   | T   | 20060315 | AT 2003-767960   | 2003<br>1205      |
|   |   |          | <---             |                   |
| JP 2006509028   | T   | 20060316 | JP 2004-558778   | 2003<br>1205      |
|   |   |          | <---             |                   |
| NZ 540079   | A   | 20061222 | NZ 2003-540079   | 2003<br>1205      |
|   |   |          | <---             |                   |
| ES 2279176  | T3  | 20070816 | ES 2003-767960   | 2003<br>1205      |
|   |   |          | <---             |                   |
| IL 168970   | A   | 20090504 | IL 2003-168970   | 2003<br>1205      |
|   |   |          | <---             |                   |
| ZA 2005004014   | A   | 20060426 | ZA 2005-4014     | 2005<br>0518      |
|   |   |          | <---             |                   |
| IN 2005DN02222  | A   | 20090327 | IN 2005-DN2222   | 2005<br>0525      |
|   |   |          | <---             |                   |
| MX 2005005865   | A   | 20050829 | MX 2005-5865     | 2005<br>0601      |
|   |   |          | <---             |                   |
| NO 2005002711   | A   | 20050627 | NO 2005-2711     | 2005<br>0606      |
|   |   |          | <---             |                   |
| US 20060116290  | A1  | 20060601 | US 2005-537467   | 2005<br>1208      |
|   |   |          | <---             |                   |
| PRIORITY APPLN. INFO.:  |   |          | GB 2002-28537    | A<br>2002<br>1206 |
|   |   |          | <---             |                   |
|   |   |          | WO 2003-GB5291   | W<br>2003<br>1205 |
|   |   |          | <---             |                   |
| ED  | Entered STN: 25 Jun 2004  |          |                  |                   |
| AB  | The stability of particulate suspension comprising an aqueous phase containing a suspended agrochem. solid insol. in the aqueous phase, and containing substantially no miscible organic solvent, is enhanced by (1) forming a polymeric stabilizer with a hydrophilic moiety and a hydrophobic moiety and (2) reacting this stabilizer with $\geq 1$ substance dissolved or suspended in the aqueous phase. The stabilizers (e.g. reactive |          |                  |                   |

# 10/537,467-310163-EIC SEARCH

surfactants synthesized by atomic transfer radical polymerization) are formed by polymerizing a plurality of vinylic monomers (not exclusively vinylic esters or their hydrolyzed products), at least some of which contain functional groups capable of undergoing crosslinking reactions, with functional groups of substance(s) in the aqueous phase. The ratio is <1 part by weight of the polymeric stabilizer prior to crosslinking per 5 parts of suspended agrochem. Thus, a fluid suspension concentrate with little or no foaming and a particle size of 1.61 µm was prepared by milling picoxystrobin 20% weight/weight in water and Me methacrylate-mono-2-(methacryloyloxy)ethyl succinate diblock copolymer 5% by weight relative to the fungicide with zirconia beads in a shaker mill for 30 min.

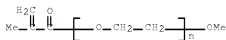
IT 478813-86-4 478813-89-7  
478813-93-3 478813-94-4 478813-97-7  
478813-99-9 709672-75-3 709672-76-4  
709672-77-5 709672-62-1  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(particulate pesticide suspensions stabilized with  
reactive polymeric surfactants)  
RN 478813-86-4 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with  
methyl 2-methyl-2-propenoate,  
α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-  
ethanediyl) and sodium 2-methyl-2-propenoate, graft (9CI) (CA  
INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS



CM 2

CRN 5536-61-8

CMF C4 H6 O2 . Na



● Na

CM 3

CRN 868-77-9

CMF C6 H10 O3



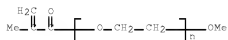
CM 4

CRN 80-62-6  
CMF C5 H8 O2

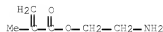
RN 478813-89-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride,  
polymer with methyl 2-methyl-2-propenoate and  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-  
ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0  
CMF (C2 H4 O)n C5 H8 O2  
CCI PMS

CM 2

CRN 2420-94-2  
CMF C6 H11 N O2 . Cl H

● HCl

CM 3

CRN 80-62-6  
CMF C5 H8 O2

RN 478813-93-3 HCAPLUS



## 10/537,467-310163-EIC SEARCH

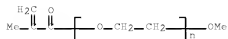
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-aminoethyl 2-methyl-2-propenoate hydrochloride, methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS



CM 2

CRN 20882-04-6

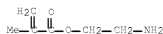
CMF C10 H14 O6



CM 3

CRN 2420-94-2

CMF C6 H11 N O2 . Cl H



● HCl

CM 4

CRN 80-62-6

CMF C5 H8 O2



RN 478813-94-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride, polymer with methyl 2-methyl-2-propenoate,

# 10/537,467-310163-EIC SEARCH

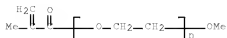
$\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRM 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS



CM 2

CRM 5536-61-8

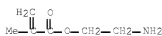
CMF C4 H6 O2 . Na



CM 3

CRM 2420-94-2

CMF C6 H11 N O2 . Cl H



CM 4

CRM 80-62-6

CMF C5 H8 O2



RN 478813-97-7 HCAPLUS

# 10/537,467-310163-EIC SEARCH

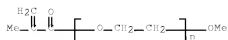
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS



CM 2

CRN 20882-04-6

CMF C10 H14 O6



CM 3

CRN 80-62-6

CMF C5 H8 O2



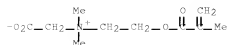
RN 478813-99-9 HCAPLUS

CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 62723-61-9

CMF C10 H17 N O4

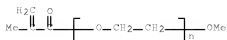


CM 2

CRM 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS



CM 3

CRM 80-62-6

CMF C5 H8 O2



RN 709672-75-3 HCAPLUS

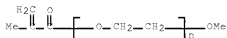
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, iodide, polymer with 2-[(1,1-dimethylethyl)amino]ethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRM 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

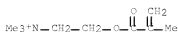
CCI PMS



CM 2

CRM 26536-87-8

CMF C9 H18 N O2 . I



● I-

CM 3

CRN 3775-90-4

CMF C10 H19 N O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



RN 709672-76-4 HCAPLUS

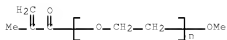
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, iodide, polymer with 2-aminoethyl 2-methyl-2-propenoate hydrochloride, methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

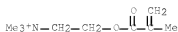
CCI PMS



CM 2

CRN 26536-87-8

CMF C9 H18 N O2 . I



CM 3

# 10/537,467-310163-EIC SEARCH

CRN 2420-94-2  
CMF C6 H11 N O2 . C1 H



● HCl

CM 4

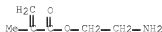
CRN 80-62-6  
CMF C5 H8 O2



RN 709672-77-5 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride,  
polymer with methyl 2-methyl-2-propenoate, diblock (9CI) (CA  
INDEX NAME)

CM 1

CRN 2420-94-2  
CMF C6 H11 N O2 . C1 H



● HCl

CM 2

CRN 80-62-6  
CMF C5 H8 O2

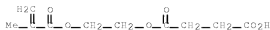


RN 709673-62-1 HCAPLUS  
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]  
ester, polymer with methyl 2-methyl-2-propenoate, diblock (9CI)  
(CA INDEX NAME)

CM 1

CRN 20882-04-6

CMF C10 H14 O6



CM 2

CRN 80-62-6

CMF C5 H8 O2



IC ICM A01N025-00

CC 5-6 (Agrochemical Bioregulators)

Section cross-reference(s): 37, 46

ST agrochem suspension stabilizer polymer surfactant

IT Acaricides

Fungicides

Insecticides

Surfactants

(particulate pesticide suspensions stabilized with reactive polymeric surfactants)

IT Pesticide formulations

(suspensions; particulate pesticide suspensions stabilized with reactive polymeric surfactants)

IT 1897-45-6, Chlorothalonil 71751-41-2, Abamectin 117428-22-5,

Picoxystrobin 131860-33-8, Azoxystrobin 153719-23-4,

Thiamethoxam 155569-91-8, Emamectin benzoate 478813-84-2

478813-85-3 478813-86-4 478813-88-7

478813-93-3 478813-94-4 478813-97-7

478813-99-9 478932-53-5 709672-75-3

709672-76-4 709672-77-5 709672-78-6

709673-62-1 709673-65-4 709673-68-7 709673-70-1

709673-72-3

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)

(particulate pesticide suspensions stabilized with reactive polymeric surfactants)

OS.CITING REF COUNT: 1

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 3 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:964247 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 138:39741

TITLE: Use of reactive polymeric surfactants in the formation of emulsions

INVENTOR(S): Heming, Alexander Mark; Mulqueen, Patrick Joseph; Scher, Herbert Benson; Shirley, Ian Malcolm

PATENT ASSIGNEE(S): Syngenta Limited, UK

## 10/537,467-310163-EIC SEARCH

SOURCE: PCT Int. Appl., 60 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|---|------|----------|-----------------|--------------|
| WO 2002100525   | A2   | 20021219 | WO 2002-GB2744  | 2002<br>0610 |
| WO 2002100525   | A3   | 20030731 |                 |              |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VH, YU, ZA, ZM, ZW |      |          |                 |              |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |              |
| CA 2447759  | A1   | 20021219 | CA 2002-2447759 | 2002<br>0610 |
| AU 2002314315   | A1   | 20021223 | AU 2002-314315  | 2002<br>0610 |
| AU 2002314315   | B2   | 20061221 |                 |              |
| NZ 529669   | A    | 20031219 | NZ 2002-529669  | 2002<br>0610 |
| EP 1401562  | A2   | 20040331 | EP 2002-740885  | 2002<br>0610 |
| EP 1401562  | B1   | 20081008 |                 |              |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |              |
| BR 2002010302   | A    | 20040713 | BR 2002-10302   | 2002<br>0610 |
| CN 1541136  | A    | 20041027 | CN 2002-815689  | 2002<br>0610 |
| CN 100415354  | C    | 20080903 |                 |              |
| JP 2004537610   | T    | 20041216 | JP 2003-503338  | 2002<br>0610 |
| IL 159062   | A    | 20070704 | IL 2002-159062  | 2002<br>0610 |
| AT 410222   | T    | 20081015 | AT 2002-740885  | 2002<br>0610 |
| ES 2311057  | T3   | 20090201 | ES 2002-740885  | 2002<br>0610 |
| ZA 2003009057   | A    | 20040917 | ZA 2003-9057    | 2003<br>1120 |
| IN 2003MN01063  | A    | 20050429 | IN 2003-MN1063  | 2003<br>1120 |
| MX 2003011379   | A    | 20040405 | MX 2003-11379   |              |



## 10/537,467-310163-EIC SEARCH

|                        |    |          |                |      |
|------------------------|----|----------|----------------|------|
|                        |    |          |                | 2003 |
|                        |    |          |                | 1209 |
| US 20040197357         | A1 | 20041007 | US 2004-480405 |      |
|                        |    |          |                | 2004 |
| US 7199185             | B2 | 20070403 |                | 0527 |
| PRIORITY APPLN. INFO.: |    |          | GB 2001-14197  | A    |
|                        |    |          |                | 2001 |
|                        |    |          |                | 0611 |
|                        |    |          | WO 2002-GB2744 | W    |
|                        |    |          |                | 2002 |
|                        |    |          |                | 0610 |

ED Entered STIN: 20 Dec 2002

AB The emulsions comprise a liquid continuous phase, a liquid discontinuous phase, and a polymer surfactant having hydrophilic and hydrophobic components as stabilizer; upon interfacial polymerization, microcapsules are formed that contain an active agent, e.g., agrochem. active agents. The monomers are selected from vinyl, (meth)acrylates, alkylene glycols, and contain reactive groups, e.g., sulfonate, carboxy, carboxybetaine, quaternary ammonium, epoxide, carbodiimide, aziridine, etc. The surfactants are random graft polymers or block copolymers in which the hydrophobic unit includes a hydrophilic crosslinking unit which reacts with a wall forming ingredient in a microencapsulation process, or an ingredient in the disperse phase of an emulsion. A reactive polymer surfactant was prepared by ATRP [atom transfer radical polymerization] of Me methacrylate, 2-hydroxyethyl methacrylate, 2-(trimethylammonium)ethyl methacrylate iodide, and mono-methoxy-poly(ethylene glycol)-mono methacrylate using ethyl-2-bromoisobutyrate as initiator, CuCl catalyst and N-propyl-2-pyridylmethanimine catalyst ligand, at 25-90° for 3-24 h.

IT 709673-62-1P

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(diblock; preparation and crosslinking of reactive polymer surfactants for use as emulsion stabilizers and micro-encapsulants)

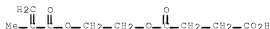
RN 709673-62-1 HCAPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with methyl 2-methyl-2-propenoate, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 20882-04-6

CMF C10 H14 O6



CM 2

CRN 80-62-6

CMF C5 H8 O2

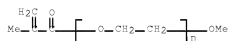


# 10/537,467-310163-EIC SEARCH

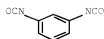
IT 478814-18-5P 478814-19-6P  
 478814-20-9P  
 RL: AGR (Agricultural use); IMF (Industrial manufacture); TEM  
 (Technical or engineered material use); BIOL (Biological study);  
 PREP (Preparation); USES (Uses)  
 (microcapsules; preparation of reactive polymeric surfactant  
 emulsifier encapsulants for agrochem. agents)  
 RN 478814-18-5 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride,  
 polymer with 1,3-diisocyanatomethylbenzene, 2-(dimethylamino)ethyl  
 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate,  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-  
 ethanediy) and polymethylenepolyphenylene isocyanate, compd. with  
 iodomethane (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 74-88-4  
 CMF C H3 I

H3C—I

CM 2  
 CRN 478814-17-4  
 CMF (C9 H6 N2 O2 . C8 H15 N O2 . C6 H11 N O2 . C5 H8 O2 . (C2 H4  
 O)n C5 H8 O2 . Cl H . Unspecified)x  
 CCI PMS  
 CM 3  
 CRN 26915-72-0  
 CMF (C2 H4 O)n C5 H8 O2  
 CCI PMS



CM 4  
 CRN 26471-62-5  
 CMF C9 H6 N2 O2  
 CCI IDS



D1—Me

CM 5

CRN 9016-87-9  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

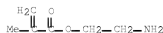
CM 6

CRN 2867-47-2  
 CMF C8 H15 N O2



CM 7

CRN 2420-94-2  
 CMF C6 H11 N O2 . C1 H



● HCl

CM 8

CRN 80-62-6  
 CMF C5 H8 O2

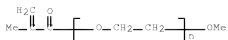


RN 478814-19-6 HCAPLUS

CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with 2-aminoethyl 2-methyl-2-propenoate hydrochloride, 1,3-diisocyanatomethylbenzene, methyl 2-methyl-2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and polymethylenepolyphenylene isocyanate (9CI) (CA INDEX NAME)

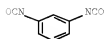
CM 1

CRN 26915-72-0  
 CMF (C2 H4 O)n C5 H8 O2  
 CCI PMS



CM 2

CRM 26471-62-5  
 CMF C9 H6 N2 O2  
 CCI IDS



D1-Me

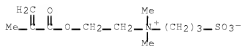
CM 3

CRM 9016-87-9  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

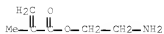
CM 4

CRM 3637-26-1  
 CMF C11 H21 N O5 S



CM 5

CRM 2420-94-2  
 CMF C6 H11 N O2 . C1 H



● HCl

CM 6

## 10/537,467-310163-EIC SEARCH

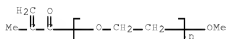
CRN 80-62-6  
CMF C5 H8 O2



RN 478814-20-9 HCAPLUS  
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]  
ester, polymer with 2-aminoethyl 2-methyl-2-propenoate  
hydrochloride, 1,3-diisocyanatomethylbenzene, methyl  
2-methyl-2-propenoate,  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -  
methoxypoly(oxy-1,2-ethanediyl) and polymethylenepolyphenylene  
isocyanate (9CI) (CA INDEX NAME)

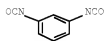
CM 1

CRN 26915-72-0  
CMF (C2 H4 O)n C5 H8 O2  
CCI PMS



CM 2

CRN 26471-62-5  
CMF C9 H6 N2 O2  
CCI IDS



D1-Me

CM 3

CRN 20882-04-6  
CMF C10 H14 O6



CM 4

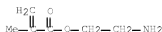
## 10/537,467-310163-EIC SEARCH

CRM 9016-87-9  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 5

CRM 2420-94-2  
 CMF C6 H11 N O2 . Cl H



● HCl

CM 6

CRM 80-62-6  
 CMF C5 H8 O2



IT 478813-86-4P 478813-89-7P  
 478813-91-1P 478813-92-2P  
 478813-93-3P 478813-94-4P  
 478813-95-5P 478813-97-7P  
 478813-99-9P

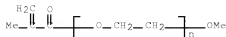
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation and crosslinking of reactive polymer surfactants for use as emulsion stabilizers and micro-encapsulants)

RN 478813-86-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate,  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRM 26915-72-0  
 CMF (C2 H4 O)n C5 H8 O2  
 CCI PMS



CM 2

CRN 5536-61-8

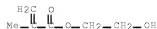
CMF C4 H6 O2 . Na



CM 3

CRN 868-77-9

CMF C6 H10 O3



CM 4

CRN 80-62-6

CMF C5 H8 O2



RN 478813-89-7 HCAPLUS

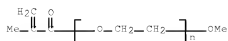
CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride,  
 polymer with methyl 2-methyl-2-propenoate and  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-  
 ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

CCI PMS



CM 2

# 10/537,467-310163-EIC SEARCH

CRN 2420-94-2  
CMF C6 H11 N O2 . C1 H



● HCl

CM 3

CRN 80-62-6  
CMF C5 H8 O2



RN 478813-91-1 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride,  
polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, methyl  
2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)-  
 $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft, compd. with  
iodomethane (9CI) (CA INDEX NAME)

CM 1

CRN 74-88-4  
CMF C H3 I

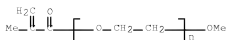
H3C-I

CM 2

CRN 478813-90-0  
CMF (C8 H15 N O2 . C6 H11 N O2 . C5 H8 O2 . (C2 H4 O)n C5 H8 O2 .  
C1 H)x  
CCI PMS

CM 3

CRN 26915-72-0  
CMF (C2 H4 O)n C5 H8 O2  
CCI PMS





CM 4

CRN 2867-47-2

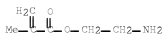
CMF C8 H15 N O2



CM 5

CRN 2420-94-2

CMF C6 H11 N O2 . C1 H



● HCl

CM 6

CRN 80-62-6

CMF C5 H8 O2



RN 478813-92-2 HCAPLUS

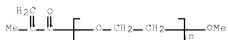
CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with 2-aminoethyl 2-methyl-2-propenoate hydrochloride, methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

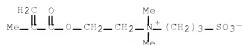
CCI PMS



CM 2

CRM 3637-26-1

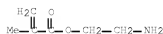
CMF C11 H21 N O5 S



CM 3

CRM 2420-94-2

CMF C6 H11 N O2 . Cl H



CM 4

CRM 80-62-6

CMF C5 H8 O2



RN 478813-93-3 HCAPLUS

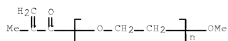
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-aminoethyl 2-methyl-2-propenoate hydrochloride, methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRM 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

CCI PMS



CM 2

CRM 20882-04-6

CMF C10 H14 O6



CM 3

CRM 2420-94-2

CMF C6 H11 N O2 . C1 H



CM 4

CRM 80-62-6

CMF C5 H8 O2



RN 478813-94-4 HCAPLUS

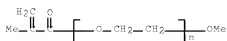
CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride,  
polymer with methyl 2-methyl-2-propenoate,  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\alpha$ -methoxypoly(oxy-1,2-  
ethanediyl) and sodium 2-methyl-2-propenoate, graft (9CI) (CA  
INDEX NAME)

CM 1

CRM 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

CCI PMS



CM 2

# 10/537,467-310163-EIC SEARCH

CRM 5536-61-8  
CMF C4 H6 O2 . Na



● Na

CM 3

CRM 2420-94-2  
CMF C6 H11 N O2 . Cl H



● HCl

CM 4

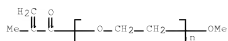
CRM 80-62-6  
CMF C5 H8 O2



RN 478813-95-5 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride,  
polymer with 4-ethenylbenzenesulfonic acid, methyl  
2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)-  
 $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX  
NAME)

CM 1

CRM 26915-72-0  
CMF (C2 H4 O)n C5 H8 O2  
CCI PMS



CM 2

CRN 2420-94-2

CMF C6 H11 N O2 . C1 H

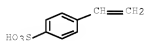


● HCl

CM 3

CRN 98-70-4

CMF C8 H8 O3 S



CM 4

CRN 80-62-6

CMF C5 H8 O2



RN 478813-97-7 HCAPLUS

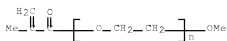
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]  
 ester, polymer with methyl 2-methyl-2-propenoate and  
 α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-  
 ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS



CM 2

CRN 20882-04-6  
CMF C10 H14 O6



CM 3

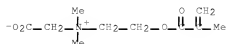
CRN 80-62-6  
CMF C5 H8 O2



RN 478813-99-9 HCAPLUS  
CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

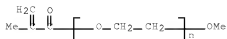
CM 1

CRN 62723-61-9  
CMF C10 H17 N O4



CM 2

CRN 26915-72-0  
CMF (C2 H4 O)<sub>n</sub> C5 H8 O2  
CCI PMS

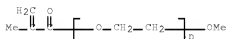


CM 3

CRN 80-62-6  
CMF C5 H8 O2



IT 478814-02-7P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (preparation of crosslinked surfactant emulsifiers at air/water interface to prepare stable emulsions of internal liquid phases)  
 RN 478814-02-7 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride, polymer with methyl 2-methyl-2-propenoate,  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), polymethylenepolyphenylene isocyanate and sodium 2-methyl-2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 26915-72-0  
 CMF (C2 H4 O)<sub>n</sub> C5 H8 O2  
 CCI PMS



CM 2  
 CRN 9016-87-9  
 CMF Unspecified  
 CCI PMS, MAN

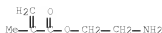
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3  
 CRN 5536-61-8  
 CMF C4 H6 O2 . Na



● Na

CM 4  
 CRN 2420-94-2  
 CMF C6 H11 N O2 . Cl H



● HCl

CM 5

CRM 80-62-6  
CMF C5 H8 O2



IT 478814-03-8P 478814-06-1P  
478814-08-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

RN 478814-03-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride, polymer with Desmodur N 3300, methyl 2-methyl-2-propenoate,  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\theta$ -methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

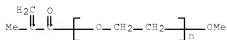
CM 1

CRM 104559-01-5  
CMF Unspecified  
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRM 26915-72-0  
CMF (C2 H4 O)n C5 H8 O2  
CCI PMS



CM 3

CRM 5536-61-8  
CMF C4 H6 O2 . Na



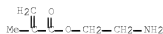


● Na

CM 4

CRM 2420-94-2

CMF C6 H11 N O2 . Cl H



● HCl

CM 5

CRM 80-62-6

CMF C5 H8 O2



RN 478814-06-1 HCAPLUS

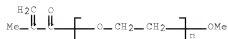
CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride,  
 polymer with methanediimine, methyl 2-methyl-2-propenoate,  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRM 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

CCI PMS



CM 2

CRM 5536-61-8

CMF C4 H6 O2 . Na

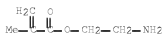


● Na

CM 3

CRN 2420-94-2

CMF C6 H11 N O2 . Cl H



● HCl

CM 4

CRN 151-51-9

CMF C H2 N2



CM 5

CRN 80-62-6

CMF C5 H8 O2



RN 478814-08-3 HCAPLUS

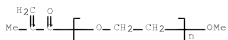
CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-aminoethyl 2-methyl-2-propenoate hydrochloride, methanediimine, methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

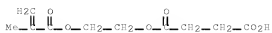
CCI PMS



CM 2

CRN 20882-04-6

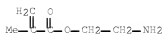
CMF C10 H14 O6



CM 3

CRN 2420-94-2

CMF C6 H11 N O2 . C1 H



● HCl

CM 4

CRN 151-51-9

CMF C H2 N2



CM 5

CRN 80-62-6

CMF C5 H8 O2



IC ICM B01F017-00  
 CC 35-8 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 5, 46

## 10/537,467-310163-EIC SEARCH

IT 119182-44-4P, 2-Hydroxyethyl methacrylate-methyl methacrylate block copolymer 478813-96-6P 709673-62-1P  
709673-70-1P  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(diblock; preparation and crosslinking of reactive polymer surfactants for use as emulsion stabilizers and micro-encapsulants)

IT 478814-10-7P 478814-11-8P 478814-12-9P 478814-13-0P  
478814-14-1P 478814-16-3P 478814-18-5P  
478814-19-6P 478814-20-9P  
RL: AGR (Agricultural use); IMF (Industrial manufacture); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(microcapsules; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

IT 478813-84-2P 478813-85-3P 478813-86-4P  
478813-87-5P 478813-88-6P 478813-89-7P  
478813-91-1P 478813-92-2P  
478813-93-3P 478813-94-4P  
478813-95-5P 478813-97-7P 478813-98-8P  
478813-99-9P 478814-00-5P 478814-01-6P 478932-53-5P  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation and crosslinking of reactive polymer surfactants for use as emulsion stabilizers and micro-encapsulants)

IT 478814-02-7P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of crosslinked surfactant emulsifiers at air/water interface to prepare stable emulsions of internal liquid phases)

IT 478814-03-8P 478814-04-9P 478814-05-0P  
478814-06-1P 478814-07-2P 478814-08-3P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 4 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2002:10203 HCAPLUS Full-text  
DOCUMENT NUMBER: 136:70690  
TITLE: Stabilization of light sensitive substances for pest control formulations  
INVENTOR(S): Rose, Simon Alexander Hanson; Grey, Bryan David; Kullar, Jatinder Singh  
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Water Treatments Ltd., UK  
SOURCE: PCT Int. Appl., 27 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE         |
|---------------|------|----------|-----------------|--------------|
| WO 2002000023 | A1   | 20020103 | WO 2001-EP6602  | 2001<br>0612 |

## 10/537,467-310163-EIC SEARCH

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2411579 A1 20020103 CA 2001-2411579 2001 0612

EP 1294230 A1 20030326 EP 2001-951575 2001 0612

EP 1294230 B1 20060412

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

HU 2003000656 A2 20030728 HU 2003-656 2001 0612

AT 322820 T 20060415 AT 2001-951575 2001 0612

CN 1251588 C 20060419 CN 2001-811845 2001 0612

AU 2001272464 B2 20060810 AU 2001-272464 2001 0612

ES 2261439 T3 20061116 ES 2001-951575 2001 0612

IL 153239 A 20070704 IL 2001-153239 2001 0612

US 20030134910 A1 20030717 US 2002-297647 2002 1209

MX 2002012801 A 20030514 MX 2002-12801 2002 1219

US 20060247323 A1 20061102 US 2006-475698 2006 0627

PRIORITY APPLN. INFO.: GB 2000-15395 A 2000 0626

WO 2001-EP6602 W 2001 0612

US 2002-297647 A1

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ED Entered STN: 04 Jan 2002

AB An emulsion comprising an organic discontinuous phase which is distributed through a continuous aqueous phase, where the organic phase comprises a light sensitive active ingredient, and the emulsion is stabilized by a water-soluble stabilizing material in the aqueous phase, where the water-soluble stabilizing material is a water-soluble stabilizing polymer which has many hydrophilic and hydrophobic groups and is selected from partially hydrolyzed poly(vinyl acetate) and addition copolymers formed from (i)  $\geq 1$  ethylenically unsatd. carboxylic acid esters and (ii)  $\geq 1$  ethylenically unsatd. carboxylic acid or ethylenically unsatd. carboxylic acid anhydride, and where the organic phase further comprises (a) an organic solvent which is a liquid at 25° and/or (b) an organic phase stabilizing material comprises hydrophobic moieties and is a material which is more soluble in the organic phase than the aqueous phase. The composition is useful for protecting light sensitive active ingredients which would otherwise in neat form decompose on exposure to light, preferably sunlight. The light sensitive active ingredient maybe pesticide e.g. pyrethroids, herbicide or a veterinary treatment active.

IT 25035-88-5, Butyl acrylate-ethyl acrylate-methacrylic acid-methyl methacrylate copolymer  
RL: POF (Polymer in formulation); USES (Uses)  
(emulsion stabilized light sensitive substances for pest control formulations)

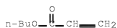
RN 25035-88-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethyl 2-propenoate and methyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 140-88-5

CMF C5 H8 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-41-4  
CMF C4 H6 O2

IC ICM A01N025-22  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 5  
IT Pesticides  
(emulsion stabilized light sensitive substances for  
pest control formulations)  
IT Pyrethrins  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsion stabilized light sensitive substances for  
pest control formulations)  
IT 9003-20-7D, Poly(vinyl acetate), hydrolyzed 25035-88-5  
, Butyl acrylate-ethyl acrylate-methacrylic acid-methyl  
methacrylate copolymer 29860-33-1, 2-Hydroxypropyl  
methacrylate-lauryl methacrylate copolymer 76653-25-3, Isobutyl  
methacrylate-2-hydroxypropyl methacrylate copolymer 193477-25-7,  
Maleic anhydride-stearyl methacrylate-styrene copolymer  
RL: POF (Polymer in formulation); USES (Uses)  
(emulsion stabilized light sensitive substances for  
pest control formulations)  
IT 26002-80-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsion stabilized light sensitive substances for  
pest control formulations)  
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE  
THIS RECORD (1 CITINGS)  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT  
L77 ANSWER 5 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2002:644932 HCAPLUS Full-text  
DOCUMENT NUMBER: 137:186624  
TITLE: Antifogging and transparent polyolefin films  
for agricultural uses  
INVENTOR(S): Arai, Hirotaka; Yamagishi, Hiroshi  
PATENT ASSIGNEE(S): Mitsubishi Chemical MKV Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE         |
|---------------|------|----------|-----------------|--------------|
| JP 2002238367 | A    | 20020827 | JP 2001-45676   | 2001<br>0221 |

PRIORITY APPLN. INFO.:

&lt;--

JP 2001-45676

2001

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ED Entered STN: 27 Aug 2002

AB Title films contain exterior layers prepared from acrylic resin (preferably having a glass-transition temperature of 50-82°) and acrylic modified polyolefin blends. A trilayered film consecutively consisted of an antifogging interior layer [from aqueous solution containing colloidal SiO<sub>2</sub> and acrylic acid (I)-Et acrylate-Me methacrylate (II)-styrene copolymer], a LDPE base film, and an exterior layer (from 70% I-II-Bu acrylate-Bu methacrylate copolymer and 30% II copolymer). resin prepared from 2-hydroxyethyl acrylate and II-modified maleated hydrogenated butadiene-styrene block copolymer) and showed good interlayer adhesion (in water at 5° over 24 h), no fusing (after soaking in water for 2 days, wrapping on a metal pipe, and drying at 65° for 1 wk), and good transparency and antifogging ability over 4 yrs.

IT 38415-32-6P, Acrylic acid-butyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer 51981-89-6P, Acrylic acid-butyl acrylate-butyl methacrylate-methyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (blends for exterior layer; mulch films containing antifogging interiors and exteriors prepared from acrylic resin and acrylic modified polyolefin blends)

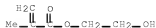
RN 38415-32-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (CA INDEX NAME)

CM 1

CRN 868-77-9

CMF C6 H10 O3



CM 2

CRN 97-88-1

CMF C8 H14 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2





# 10/537,467-310163-EIC SEARCH

CM 4

CRM 79-10-7  
CMF C3 H4 O2



RN 51981-89-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl  
2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid  
(CA INDEX NAME)

CM 1

CRM 141-32-2  
CMF C7 H12 O2



CM 2

CRM 97-88-1  
CMF C8 H14 O2



CM 3

CRM 80-62-6  
CMF C5 H8 O2



CM 4

CRM 79-10-7  
CMF C3 H4 O2



# 10/537,467-310163-EIC SEARCH

IT 25585-75-5P, Acrylic acid-ethyl acrylate-methyl methacrylate-styrene copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (interior layer; mulch films containing antifogging interiors and exteriors prepared from acrylic resin and acrylic modified polyolefin blends)

RN 25585-75-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, ethyl 2-propenoate and 2-propenoic acid (CA INDEX NAME)

CM 1

CRN 140-88-5

CMF C5 H8 O2



CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



## 10/537,467-310163-EIC SEARCH

IC ICM A01G009-14  
 ICS A01G013-02; C08J007-04; C08L023-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 5  
 IT 80-62-GDP, Methyl methacrylate, polymers with 2-hydroxyethyl acrylate reaction products with maleated hydrogenated butadiene-styrene block copolymer 818-61-1DP, 2-Hydroxyethyl acrylate, reaction products with maleated hydrogenated butadiene-styrene block copolymer, polymers with Me methacrylate 3841S-32-6P, Acrylic acid-butyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer 51981-89-6P, Acrylic acid-butyl acrylate-butyl methacrylate-methyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (blends for exterior layer; mulch films containing antifogging interiors and exteriors prepared from acrylic resin and acrylic modified polyolefin blends)  
 IT 25885-75-5P, Acrylic acid-ethyl acrylate-methyl methacrylate-styrene copolymer 29717-56-4P, Acrylamide-acrylic acid-2-ethylhexyl acrylate-styrene copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (interior layer; mulch films containing antifogging interiors and exteriors prepared from acrylic resin and acrylic modified polyolefin blends)

L77 ANSWER 6 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2002:791970 HCAPLUS Full-text  
 DOCUMENT NUMBER: 137:295796  
 TITLE: Microencapsulation with polyurethanes and(or) polyureas  
 INVENTOR(S): Podszun, Wolfgang; Krueger, Joachim; Probst, Joachim  
 PATENT ASSIGNEE(S): Bayer AG, Germany  
 SOURCE: Ger. Offen., 8 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO.  | DATE         |
|---------------|------|----------|------------------|--------------|
| DE 10117784   | A1   | 20021017 | DE 2001-10117784 | 2001<br>0410 |
| CA 2443682    | A1   | 20021024 | CA 2002-2443682  | 2002<br>0402 |
| WO 2002083290 | A1   | 20021024 | WO 2002-EP3617   | 2002<br>0402 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,

## 10/537,467-310163-EIC SEARCH

|                        | ML, MR, NE, SN, TD, TG  |    |          |      |                 |
|------------------------|---|----|----------|------|-----------------|
| AU                     | 2002244761  | A1 | 20021028 | AU   | 2002-244761     |
|                        |   |    |          |      | 2002<br>0402    |
|                        |   |    |          | <--- |                 |
| EP                     | 1379328   | A1 | 20040114 | EP   | 2002-712964     |
|                        |   |    |          |      | 2002<br>0402    |
|                        |   |    |          | <--- |                 |
|                        | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,<br>MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  |    |          |      |                 |
| BR                     | 2002008797  | A  | 20040309 | BR   | 2002-8797       |
|                        |   |    |          |      | 2002<br>0402    |
|                        |   |    |          | <--- |                 |
| CN                     | 1501837   | A  | 20040602 | CN   | 2002-808106     |
|                        |   |    |          |      | 2002<br>0402    |
|                        |   |    |          | <--- |                 |
| JP                     | 2004535276  | T  | 20041125 | JP   | 2002-581087     |
|                        |   |    |          |      | 2002<br>0402    |
|                        |   |    |          | <--- |                 |
| US                     | 20040115280   | A1 | 20040617 | US   | 2003-474123     |
|                        |   |    |          |      | 2003<br>1006    |
|                        |   |    |          | <--- |                 |
| MX                     | 2003009229  | A  | 20040129 | MX   | 2003-9229       |
|                        |   |    |          |      | 2003<br>1009    |
|                        |   |    |          | <--- |                 |
| PRIORITY APPLN. INFO.: |   |    |          | DE   | 2001-10117784 A |
|                        |   |    |          |      | 2001<br>0410    |
|                        |   |    |          | <--- |                 |
|                        |   |    |          | WO   | 2002-EP3617 W   |
|                        |   |    |          |      | 2002<br>0402    |
|                        |   |    |          | <--- |                 |
| ED                     | Entered STN: 18 Oct 2002  |    |          |      |                 |
| AB                     | Highly stable microcapsules are manufactured by encapsulation of solid active substances in an aqueous dispersion in which $\geq 1$ polyisocyanate is reacted with $\geq 1$ polyol and/or polyamine. Typical active substances are drugs, agrochemicals, perfumes, leucodyes, fireproofing agents, and adhesives.   |    |          |      |                 |
| IT                     | 26351-99-5DF, Acrylic acid-butyl acrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer, reaction products with isocyanurate- and allophanate-containing HDI-based polyisocyanates<br>RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)<br>(microencapsulation with polyurethanes and/or polyureas of active substances) |    |          |      |                 |
| RN                     | 26351-99-5 HCAPLUS  |    |          |      |                 |
| CN                     | 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (CA INDEX NAME)   |    |          |      |                 |
| CM                     | 1   |    |          |      |                 |
| CRN                    | 868-77-9  |    |          |      |                 |
| CMF                    | C6 H10 O3   |    |          |      |                 |



CM 2

CRN 141-32-2  
 CMF C7 H12 O2



CM 3

CRN 80-62-6  
 CMF C5 H8 O2



CM 4

CRN 79-10-7  
 CMF C3 H4 O2



IC ICM B01J013-02  
 ICS A61K009-50  
 CC 38-2 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 5, 19, 62, 63  
 IT 822-06-0DP, HDI, isocyanurate- and allophanate-containing polyisocyanate, polymers with acrylic polyols 26351-99-5DP, Acrylic acid-butyl acrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer, reaction products with isocyanurate- and allophanate-containing HDI-based polyisocyanates  
 RI: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
 (microencapsulation with polyurethanes and(or) polyureas of active substances)  
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L77 ANSWER 7 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2001:237920 HCAPLUS Full-text

## 10/537,467-310163-EIC SEARCH

DOCUMENT NUMBER: 134:267872  
 TITLE: Antifogging compositions and their resin films  
 for agricultural uses  
 INVENTOR(S): Yamagishi, Hiroshi; Arai, Hirotaka  
 PATENT ASSIGNEE(S): Mitsubishi Kagaku MKV KK, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE         |
|---------------|------|----------|-----------------|--------------|
| JP 2001089751 | A    | 20010403 | JP 1999-268374  | 1999<br>0922 |
| JP 3988335    | B2   | 20071010 | JP 1999-268374  | 1999<br>0922 |

PRIORITY APPLN. INFO.: <--

ED Entered STN: 04 Apr 2001  
 AB Title compns. comprise aqueous dispersions of hydrophobic resins (A) with glass-transition temperature (Tg) of 35-80°, aqueous polyurethane (B) compns., and colloidal sols (C) at B/A of 0.01-1:1, and C/(A + B) of 0.5-5. An aqueous composition containing Bu methacrylate-Me methacrylate copolymer (with Tg 37°) 2.0, Takelac XW 74-CO3 0.6, and colloidal SiO2 5 parts was coated on a polyethylene film to form a film with good antifogging after facing to a 50° water container at 20° atom. for 1 mo and 3 h at 20°  
 IT 25585-75-SP, Acrylic acid-ethyl acrylate-methyl methacrylate-styrene copolymer  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (antifogging agents containing acrylic resins with controlled glass transition temperature and polyurethanes and colloidal sols for mulches)  
 RN 25585-75-5 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, ethyl 2-propenoate and 2-propenoic acid (CA INDEX NAME)  
 CM 1  
 CRN 140-88-5  
 CMF C5 H8 O2



CM 2

CRN 100-42-5  
 CMF C8 H8



CM 3

CRN 80-62-6  
CMF C5 H8 O2



CM 4

CRN 79-10-7  
CMF C3 H4 O2



- IC ICM C09K003-18  
ICS A01G009-14; A01G013-02; C08J007-04
- CC 42-13 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5
- ST antifogging coating acrylic resin polyurethane colloidal  
sol; agricultural film antifogging coating acrylic resin glass  
transition temp
- IT Antifogging agents  
Mulches  
Plastic films  
(antifogging agents containing acrylic resins with controlled glass  
transition temperature and polyurethanes and colloidal sols  
for mulches)
- IT Acrylic polymers, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(antifogging agents containing acrylic resins with controlled glass  
transition temperature and polyurethanes and colloidal sols  
for mulches)
- IT Plate glass  
RL: POF (Polymer in formulation); USES (Uses)  
(antifogging agents containing acrylic resins with controlled glass  
transition temperature and polyurethanes and colloidal sols  
for mulches)
- IT Polyurethanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(antifogging agents containing acrylic resins with controlled glass  
transition temperature and polyurethanes and colloidal sols  
for mulches)
- IT Polyesters, miscellaneous  
Polyolefins  
RL: POF (Polymer in formulation); USES (Uses)  
(films; antifogging agents containing acrylic resins with  
controlled glass transition temperature and polyurethanes and  
colloidal sols for mulches)

## 10/537,467-310163-EIC SEARCH

- IT Vinyl compounds, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (polymers, films; antifogging agents containing acrylic resins with controlled glass transition temperature and polyurethanes and colloidal sols for mulches)
- IT 25585-75-5P, Acrylic acid-ethyl acrylate-methyl methacrylate-styrene copolymer 25608-33-7P, Butyl methacrylate-methyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (antifogging agents containing acrylic resins with controlled glass transition temperature and polyurethanes and colloidal sols for mulches)
- IT 280109-44-6, Takelac W 605 324742-99-6, Takelac W 6010 331764-13-7, Takelac XW 74C03 331764-14-8, Takelac WS 4000 331764-16-0, Trimethylolpropane tris(3-aziridinopropionate)-Takelac WS 4000 copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (antifogging agents containing acrylic resins with controlled glass transition temperature and polyurethanes and colloidal sols for mulches)
- IT 7631-86-9, Colloidal silica, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (colloidal; antifogging agents containing acrylic resins with controlled glass transition temperature and polyurethanes and colloidal sols for mulches)
- IT 9002-86-2, PVC 9002-88-4, Polyethylene 9003-22-9, Vinyl acetate-vinyl chloride copolymer 9011-14-7, PMMA 25038-59-9, PET polymer, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (films; antifogging agents containing acrylic resins with controlled glass transition temperature and polyurethanes and colloidal sols for mulches)
- IT 1344-28-1, Alumina, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (sol; antifogging agents containing acrylic resins with controlled glass transition temperature and polyurethanes and colloidal sols for mulches)

L77 ANSWER 8 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:741834 HCAPLUS Full-text

DOCUMENT NUMBER: 133:292322

TITLE: Aqueous dispersion  
pesticide formulations

INVENTOR(S): Strom, Robert M.; Price, D. Claude; Lubetkin, Steven D.

PATENT ASSIGNEE(S): Dow Agrosciences LLC, USA; Dow Chemical Company

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE         |
|---------------|------|----------|-----------------|--------------|
| WO 2000060940 | A1   | 20001019 | WO 2000-US9568  | 2000<br>0410 |

&lt;--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH,  
 CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK,



## 10/537,467-310163-EIC SEARCH

LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,  
 TZ, UA, UG, UZ, YU, ZA, ZW  
 RW: GH, GN, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,  
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,  
 SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN,  
 TD, TG

PRIORITY APPLN. INFO.:

US 1999-128994P

P

1999

0412

&lt;--

ED Entered STN: 20 Oct 2000

AB The bioavailability of a pesticide can be increased by formulating the pesticide as a stable aqueous dispersion with a particle mean diameter  $\leq 500$  nm, obtained by milling. Such a formulation has the further advantage of reducing or eliminating the need for organic solvents. The stable aqueous dispersion provides a means of preparing a one part formulation of a plurality of pesticides which would be otherwise unstable in each other's presence. Suitable surfactants are i.a. Pluronic P105, Morwet D425, Iconol TD-6, Soprophor FL, and a range of other conventional surfactants.

IT 119724-54-8, Atlox 4913

RL: MOA (Modifier or additive use); USES (Uses)  
 (surfactant in aqueous dispersion pesticide  
 formulation)

RN 119724-54-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with  
 $\alpha$ -methyl- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl) and methyl  
 2-methyl-2-propenoate, graft (CA INDEX NAME)

CM 1

CRN 9004-74-4

CMF (C2 H4 O)n C H4 O

CCI PMS



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



IC ICM A01N025-04  
 CC 5-4 (Agrochemical Bioregulators)  
 ST aq dispersion pesticide formulations  
 IT Pyrethrins  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (aqueous dispersion formulation of)  
 IT Pesticide formulations  
 (aqueous dispersion pesticide formulation)  
 IT 1912-24-9, Atrazine 126572-77-8, Strobilurine 133855-98-8,  
 Epoxiconazole 168316-95-8, Spinosad 264257-62-7  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (aqueous dispersion formulation of)  
 IT 9008-63-3, Morwet D425 24938-91-8, Iconol TDA-6 94896-21-6,  
 Atlox 4991 98285-49-5, Empicol LX 105362-40-1, Soprophor FL  
 106392-12-5, Pluronic F105 119724-54-8, Atlox 4913  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (surfactant in aqueous dispersion pesticide  
 formulation)  
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE  
 THIS RECORD (1 CITINGS)  
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L77 ANSWER 9 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2000:247493 HCAPLUS Full-text  
 DOCUMENT NUMBER: 132:280579  
 TITLE: Sustained-release antifouling marine coatings  
 based on aqueous resin  
 emulsions  
 INVENTOR(S): Kawamura, Isao; Yoshihara, Ichiro; Hori,  
 Makoto  
 PATENT ASSIGNEE(S): Kansai Paint Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE         |
|---------------|------|----------|-----------------|--------------|
| JP 2000109729 | A    | 20000418 | JP 1998-283616  | 1998<br>1006 |

PRIORITY APPLN. INFO.: JP 1998-283616  
 1998  
 1006

ED Entered STN: 18 Apr 2000  
 AB The storage-stable coatings comprise (A) aqueous resin emulsions containing CO<sub>2</sub>H and/or metal carboxylate groups in a resin mol., having acid value 10-300 KOH-mg/g, and prepared by emulsion polymerization and optionally (B) aqueous 22-valent metal-carboxylic acid complexes, where equivalent number of metals in the metal carboxylate group of A (W), that of metals in B (X), that of carboxyl groups of A (Y), and that of metal carboxylate groups of A (Z) satisfy  $(W + X)/(Y + Z) = 0.2-4.0$ . Thus, an aqueous pre-emulsion containing methacrylic acid 91.8, Et acrylate 480.0, Me methacrylate 28.2, Newcol 707SF (anionic emulsifier) 40.0, and ammonium persulfate 0.60 part was added dropwise to H<sub>2</sub>O containing 1.2 part ammonium persulfate and aged to give a 40% polymer emulsion, 56.2 parts of which was blended with an aqueous 36% malic acid Zn ammonium complex 16.3, Cu<sub>2</sub>O 22.5, pigment dispersant 2.8, red Fe oxide 1.8, Aerosil 200 0.4, and

# 10/537,467-310163-EIC SEARCH

H2O 1.8 part, applied on an anticorrosive plate, and dried to form a coating showing no adhesion of marine lives for 6 mo in the sea.

IT 116695-87-5P, Ethyl acrylate-methacrylic acid-methyl methacrylate copolymer zinc salt 263704-66-1P 263704-68-3P  
 RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (aqueous resin emulsions containing or forming metal carboxylate groups for sustained-release antifouling marine coatings)  
 RN 116695-87-5 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate, zinc salt (9CI) (CA INDEX NAME)

CM 1

CRN 25133-97-5

CMF (C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 2

CRN 140-88-5

CMF C5 H8 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



RN 263704-66-1 HCAPLUS

CN Zinc, hydroxy(2-methyl-2-propenoato-kO)-, polymer with ethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid, zinc salt (9CI) (CA INDEX NAME)

CM 1

# 10/537,467-310163-EIC SEARCH

CRN 263704-65-0  
 CMF (C5 H8 O2 . C5 H8 O2 . C4 H6 O3 Zn . C4 H6 O2)x  
 CCI PMS

CM 2

CRN 63451-47-8  
 CMF C4 H6 O3 Zn



CM 3

CRN 140-88-5  
 CMF C5 H8 O2



CM 4

CRN 80-62-6  
 CMF C5 H8 O2



CM 5

CRN 79-41-4  
 CMF C4 H6 O2



RN 263704-68-3 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate,  
 methyl 2-methyl-2-propenoate and zinc di-2-propenoate, zinc salt  
 (9CI) (CA INDEX NAME)

CM 1

CRN 263704-67-2  
 CMF (C5 H8 O2 . C5 H8 O2 . C4 H6 O2 . C3 H4 O2 . 1/2 Zn)x  
 CCI PMS

# 10/537,467-310163-EIC SEARCH

CM 2

CRN 14643-87-9

CMF C3 H4 O2 . 1/2 Zn



CM 3

CRN 140-88-5

CMF C5 H8 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



IC ICM C09D005-16  
ICS C09D005-00; C09D133-02; C09D143-00; C09D171-00; C09D201-08  
CC 42-7 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5  
ST antifouling marine coating acrylic emulsion aq  
; zinc malate acrylic emulsion coating antifouling  
IT Coating materials  
(antifouling, marine; aqueous resin emulsions  
containing or forming metal carboxylate groups for  
sustained-release antifouling marine coatings)

## 10/537,467-310163-EIC SEARCH

IT Coating materials  
(emulsion, water-thinned; aqueous resin emulsions containing or forming metal carboxylate groups for sustained-release antifouling marine coatings)

IT 79-14-IDP, Hydroxyacetic acid, zinc-amine complexes  
6915-15-7DP, Malic acid, zinc-amine complexes 7440-66-6DP, Zinc, amine-hydroxycarboxylic acid complexes, uses  
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); MOA (Modifier or additive use); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(aqueous resin emulsions containing or forming metal carboxylate groups for sustained-release antifouling marine coatings)

IT 116695-87-5P, Ethyl acrylate-methacrylic acid-methyl methacrylate copolymer zinc salt 190382-13-9P, Butyl acrylate-ethyl acrylate-methacrylic acid copolymer zinc salt 263704-66-1P 263704-68-3P  
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(aqueous resin emulsions containing or forming metal carboxylate groups for sustained-release antifouling marine coatings)

IT 1317-39-1, Cuprous oxide, uses  
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(aqueous resin emulsions containing or forming metal carboxylate groups for sustained-release antifouling marine coatings)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L77 ANSWER 10 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
ACCESSION NUMBER: 2000:807730 HCAPLUS Full-text  
DOCUMENT NUMBER: 133:363824  
TITLE: Production of inherently microbicidal polymer surfaces  
INVENTOR(S): Ottersbach, Peter; Sosna, Friedrich  
PATENT ASSIGNEE(S): Creavis Gesellschaft fuer Technologie und Innovation m.b.H., Germany  
SOURCE: Ger. Offen., 6 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE         |
|---|------|----------|------------------|--------------|
| DE 19921898   | A1   | 20001116 | DE 1999-19921898 | 1999<br>0512 |
| WO 2000069925   | A1   | 20001123 | WO 2000-EP2783   | 2000<br>0330 |
| W: AU, BR, CA, CN, IL, JP, KR, NO, NZ, PL, RU, US<br>RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                  |              |
| EP 1183282  | A1   | 20020306 | EP 2000-922570   | 2000<br>0330 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |      |          |                  |              |
| PRIORITY APPLN. INFO.:  |      |          | DE 1999-19921898 | A 1999       |

0512

WO 2000-EP2783

W

2000

0330

ED Entered STN: 16 Nov 2000

AB The surfaces of plastics are rendered microbicidal by graft-polymerization of aliphatic unsatd. monomers containing ≥1 primary amino group such as 3-aminopropyl vinyl ether on the surfaces. The resulting coated plastics are useful in sanitary articles and in medical goods.

IT 307493-26-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production of inherently microbicidal polymer surfaces by surface-grafting with unsatd. monomers having primary amine groups)

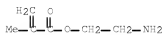
RN 307493-26-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, hydrochloride, polymer with azacyclotridecan-2-one and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2420-94-2

CMF C6 H11 N O2 . Cl H

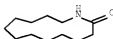


● HCl

CM 2

CRN 947-04-6

CMF C12 H23 N O



CM 3

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08F291-00

## 10/537,467-310163-EIC SEARCH

ICS C08F226-00; B05D003-00; B05D005-00; C09D139-00  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 5, 38, 63  
 IT 307493-22-7P 307493-23-8P 307493-24-9P 307493-25-0P  
 307493-26-1P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (production of inherently microbicidal polymer surfaces by surface-grafting with unsatd. monomers having primary amine groups)  
 OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L77 ANSWER 11 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1999:463440 HCAPLUS Full-text  
 DOCUMENT NUMBER: 131:117529  
 TITLE: N-coordinated triallyl boron unit-containing antifouling agents and their compositions  
 INVENTOR(S): Mori, Kiyomi; Tabuchi, Hitoshi; Takesawa, Toshiyuki  
 PATENT ASSIGNEE(S): Nitto Kasei Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 11199801 | A    | 19990727 | JP 1998-2636    | 1998<br>0108 |

PRIORITY APPLN. INFO.: JP 1998-2636  
 1998  
 0108

ED Entered STN: 29 Jul 1999  
 GI For diagram(s), see printed CA Issue.  
 AB Title agents are polymers containing units I or II (R1, R2 = H, Me; R3 = halogen, Cl-8 alkyl or alkoxy; R4 = halogen, Cl-18 alkyl; Z = Cl-18 alkylene, phenylene, benzylene, CO, COOR5, OR5, COOR5OCO with R5 = Cl-18 alkylene, phenylene; X, Y = H, Cl-18 alkyl, aryl, COR6, or forming N-containing 5- or 6-membered ring, R6 = Cl-18 alkyl, aryl; k = 0-1; m, n = 0-3). Polymerizing Bu acrylate, 2-pyridylethyl methacrylate, and Me methacrylate at 80-85° and stirring with Ph3B at 40-45° for 8 h gave a polymer with 25° viscosity 135 cP and weight-average mol. weight of 27,000, which was mixed with pigments, a plasticizer, a dispersant, and organic solvents to form a coating giving nontacky films with good antifouling ability over 6 mo.  
 IT 101818-63-7DF, reaction products with triphenylborane  
 104888-57-5DF, reaction products with triphenylborane  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (N-coordinated triarylboron-containing acrylic polymers as antifouling agents)  
 RN 101818-63-7 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester, polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7659-36-1  
 CMF C6 H11 N O2





CM 2

CRN 141-32-2  
CMF C7 H12 O2



CM 3

CRN 100-42-5  
CMF C8 H8



CM 4

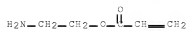
CRN 80-62-6  
CMF C5 H8 O2



RN 104888-57-5 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
2-aminoethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7659-38-3  
CMF C5 H9 N O2



CM 2

CRN 80-62-6  
CMF C5 H8 O2



IC ICM C09D005-16  
 ICS C09D133-14; C09D139-00; C08F008-42  
 CC 42-7 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 5  
 IT 101818-63-7DP, reaction products with triphenylborane  
 104888-57-5DP, reaction products with triphenylborane  
 232618-62-1DP, reaction products with triphenylborane  
 232618-63-2DP, reaction products with triphenylborane  
 232618-64-3DP, reaction products with tri(p-tolylphenyl)borane  
 232618-65-4DP, reaction products with tri(p-methoxyphenyl)borane  
 232618-66-5DP, reaction products with triphenylborane  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)  
 (N-coordinated triarylboron-containing acrylic polymers as  
 antifouling agents)

L77 ANSWER 12 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 1999:407270 HCAPLUS Full-text

DOCUMENT NUMBER: 131:75058

TITLE: Aqueous antifouling resin and  
 coating compositions with controlled active  
 ingredient release  
 INVENTOR(S): Yamashita, Hiroshi; Nakamura, Koki; Yonehara,  
 Yoichi

PATENT ASSIGNEE(S): Kansai Paint Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE         |
|------------------------|------|----------|-----------------|--------------|
| -----                  | ---- | -----    | -----           |              |
| JP 11172159            | A    | 19990629 | JP 1997-369729  | 1997<br>1211 |
|                        |      |          | <--             |              |
| JP 4063377             | B2   | 20080319 |                 |              |
| PRIORITY APPLN. INFO.: |      |          | JP 1997-369729  | 1997<br>1211 |
|                        |      |          | <--             |              |

OTHER SOURCE(S): MARPAT 131:75058

ED Entered STN: 01 Jul 1999

AB The coating comps. contain (A) antifouling binders comprising aqueous resin emulsions containing (a) resins showing acid value 10-300 mg KOH/g and having divalent metal carboxylate structure (equivalent ratio of the carboxyl group to the metal 0.1-5) in or between mols. and (b) emulsifiers and (B) antifouling agents. Thus, methacrylic acid 18, methoxyethyl acrylate 20, and Et acrylate 62 parts were polymerized in AcOEt to give polymer solution (solids content 50%), 100 parts of which was treated with 8 parts ZnO in aqueous BuOH and mixed with Newcol 5603N (anionic surfactant) and H2O to give an emulsion (solids content 40%). A test plate was coated with an aqueous coating comprising the emulsion 62.5, Cu2O 30, BYK 190 (pigment dispersant) 2, red iron oxide 2, Aerosil 200 (SiO2) 0.5, and H2O 2 parts and soaked in seawater for 24 mo to show no attachment of organisms.

# 10/537,467-310163-EIC SEARCH

IT 116695-87-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(controlled-release aqueous antifouling coatings containing metal carboxylate polymers)

RN 116695-87-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate, zinc salt (9CI) (CA INDEX NAME)

CM 1

CRN 25133-97-5

CMF (C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 2

CRN 140-88-5

CMF C5 H8 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM C09D005-16

ICS C09D133-04; C09D201-08; C09D171-02; C09D125-04; C09D131-04

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 5

ST aq antifouling coating controlled release; metal carboxylate resin antifouling coating; zinc polyacrylate antifouling coating controlled release

IT Coating materials

(antifouling; controlled-release aqueous antifouling coatings containing metal carboxylate polymers)

IT Emulsifying agents  
(controlled-release aqueous antifouling coatings containing metal carboxylate polymers)

IT 1317-39-1, Copper oxide (Cu<sub>2</sub>O), uses  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(antifouling agent; controlled-release aqueous antifouling coatings containing metal carboxylate polymers)

IT 116695-87-5P 228572-37-0P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(controlled-release aqueous antifouling coatings containing metal carboxylate polymers)

IT 216252-82-3, JSR AE 175  
RL: BUU (Biological use, unclassified); POF (Polymer in formulation); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(controlled-release aqueous antifouling coatings containing metal carboxylate polymers)

IT 9002-92-0, Noigen ET 160 9014-90-8, Newcol 560SN 228705-59-7, Eleminol ES 70  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsifier; controlled-release aqueous antifouling coatings containing metal carboxylate polymers)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L77 ANSWER 13 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1999:70188 HCAPLUS Full-text  
DOCUMENT NUMBER: 130:169610  
TITLE: Antibacterial strippable aqueous emulsion paints  
INVENTOR(S): Amano, Takashi  
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 11021476 | A    | 19990126 | JP 1997-175022  | 1997<br>0630 |

PRIORITY APPLN. INFO.: JP 1997-175022  
1997  
0630

ED Entered STN: 02 Feb 1999

AB Title paints contain bactericides and preferably acrylic resins containing ≥50% (meth)acrylate esters. An aqueous emulsion containing Bu acrylate-Bu methacrylate-Et acrylate-methacrylic acid-Me methacrylate copolymer and Bactekiller BM 103A was coated on a steel panel (for automobile body) and dried at 70° to form a film showing good antibacterial ability and strippability initially or after 500 h under weatherometer.

IT 71726-63-1P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation);

# 10/537,467-310163-EIC SEARCH

## USES (Uses)

(bactericide-containing aqueous strippable emulsion  
coatings for automobiles or elec. components)

RN 71726-63-1 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with butyl  
2-methyl-2-propenoate, butyl 2-propenoate, ethyl 2-propenoate and  
methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 140-88-5

CMF C5 H8 O2



CM 3

CRN 97-88-1

CMF C8 H14 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



IC ICM C09D005-20  
ICS C09D005-00; C09D005-02; C09D005-14; C09D133-06  
CC 42-7 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5  
ST eq antibacterial acrylic strippable paint automobile  
steel  
IT Zeolites (synthetic), uses  
RL: MOA (Modifier or additive use); POF (Polymer in formulation);  
USES (Uses)  
(Ag; bactericide-containing aqueous strippable  
emulsion coatings for automobiles or elec. components)  
IT A zeolites  
RL: MOA (Modifier or additive use); POF (Polymer in formulation);  
USES (Uses)  
(AgA; bactericide-containing aqueous strippable  
emulsion coatings for automobiles or elec. components)  
IT Antibacterial agents  
Coating materials  
(bactericide-containing aqueous strippable emulsion  
coatings for automobiles or elec. components)  
IT Acrylic polymers, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
TEM (Technical or engineered material use); PREP (Preparation);  
USES (Uses)  
(bactericide-containing aqueous strippable emulsion  
coatings for automobiles or elec. components)  
IT Automobiles  
(bodies; bactericide-containing aqueous strippable  
emulsion coatings for automobiles or elec. components)  
IT 71726-63-1P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
TEM (Technical or engineered material use); PREP (Preparation);  
USES (Uses)  
(bactericide-containing aqueous strippable emulsion  
coatings for automobiles or elec. components)  
IT 168679-73-0, Silwel 210164-79-7, Novaron AGE 330 220385-11-5,  
Silver Ace M 300  
RL: MOA (Modifier or additive use); POF (Polymer in formulation);  
USES (Uses)  
(bactericide-containing aqueous strippable emulsion  
coatings for automobiles or elec. components)  
IT 12597-69-2, Steel, miscellaneous  
RL: MSC (Miscellaneous)  
(bactericide-containing aqueous strippable emulsion  
coatings for automobiles or elec. components)

L77 ANSWER 14 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1999:521482 HCAPLUS Full-text  
DOCUMENT NUMBER: 131:154766  
TITLE: Polymer bead agrochemical formulations  
INVENTOR(S): Podszun, Wolfgang; Priesnitz, Uwe; Kuehnhold,  
Juergen; Lembrich, Helmut  
PATENT ASSIGNEE(S): Bayer A.-G., Germany  
SOURCE: Ger. Offen., 12 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

## 10/537,467-310163-EIC SEARCH

| PATENT NO.             | KIND   | DATE        | APPLICATION NO.  | DATE              |
|------------------------|--|-------------|------------------|-------------------|
| DE 19805248            | A1   | 19990812    | DE 1998-19805248 | 1998<br>0210      |
|                        |  |             | <--              |                   |
| WO 9940786             | A1   | 19990819    | WO 1999-EP562    | 1999<br>0128      |
|                        |  |             | <--              |                   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VW, YU, ZW   |             |                  |                   |
| RW:                    | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |             |                  |                   |
| AU 9932514             | A  | 19990830    | AU 1999-32514    | 1999<br>0128      |
|                        |  |             | <--              |                   |
| PRIORITY APPLN. INFO.: |  |             | DE 1998-19805248 | A<br>1998<br>0210 |
|                        |  |             | <--              |                   |
|                        |  |             | WO 1999-EP562    | W<br>1999<br>0128 |
|                        |  |             | <--              |                   |
| ED                     | Entered STN:   | 20 Aug 1999 |                  |                   |
| AB                     | Bead polymer formulations comprise (1) a particle-forming solid phase, containing styrene copolymerizate, 21 agrochem. active ingredient, and, if necessary, additives, whereby the content of active ingredient is 5-75% by weight and the particle size is 1-100 µm, and (2) optionally, a liquid phase. Thus, styrene 98, acrylonitrile 34, ethylhexyl acrylate 58, ethylene glycol dimethacrylate 10, dichlobenil 35.3, and toluene 559 g were mixed, the treated with 2 g dibenzoyl peroxide. The solution was transferred to a reactor containing 1.5 L of a 1% aqueous, alkaline (pH 8) solution of methacrylic acid-Me methacrylate (50:50) copolymer (dispersing agent), stirred (500 rpm, 8 h at 78° and 1 h at 85°), then the toluene was distilled off and part of the water removed to obtain 900 g of a bead polymer dispersion containing 4.2% dichlobenil. The formulation showed slow release of the herbicide. |             |                  |                   |
| IT                     | 25086-15-1, Methacrylic acid-methyl methacrylate copolymer   |             |                  |                   |
|                        | RL: MOA (Modifier or additive use); USES (Uses) (dispersing agents; in slow-release polymer bead agrochem. formulation manufacture)  |             |                  |                   |
| RN                     | 25086-15-1 HCAPLUS   |             |                  |                   |
| CN                     | 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate (CA INDEX NAME)   |             |                  |                   |
| CM                     | 1  |             |                  |                   |
| CRN                    | 80-62-6  |             |                  |                   |
| CMF                    | C5 H8 O2   |             |                  |                   |

H<sub>2</sub>C O  
Me-ll-OMe

CM 2

CRM 79-41-4

CMF C4 H6 O2



IC ICM C08F212-08  
 ICS C08F220-18; C08F220-44  
 CC 5-6 (Agrochemical Bioregulators)  
 Section cross-reference(s): 19, 38  
 IT 25086-15-1, Methacrylic acid-methyl methacrylate  
 copolymer  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dispersing agents; in slow-release polymer bead  
 agrochem. formulation manufacture)  
 OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE  
 THIS RECORD (3 CITINGS)

L77 ANSWER 15 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 1998:287125 HCAPLUS Full-text  
 DOCUMENT NUMBER: 129:17110  
 ORIGINAL REFERENCE NO.: 129:3657a,3660a  
 TITLE: Electrodeposition process for aluminum  
 (alloys)  
 INVENTOR(S): Kayamori, Satoshi; Ishii, Hiroaki; Suzuki,  
 Takashi  
 PATENT ASSIGNEE(S): Toa Gosei Chemical Industry Co., Ltd., Japan;  
 Sankyo Aluminium Industry Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 10121294 | A    | 19980512 | JP 1996-287308  | 1996<br>1011 |
| JP 3320322  | B2   | 20020903 | JP 1996-287308  | 1996<br>1011 |

ED Entered STN: 16 May 1998  
 AB The anodically oxidized or chemical treated Al (alloy) substrates are electrodeposited  
 with aqueous dispersion coatings containing anionic resins, aminoplasts, and  
 bactericides AgaAbM2(PO4)3.nH2O (I; A = alkali metal, alkaline earth metal, NH4, or H;  
 M = tetravalent metal; a, b > 0 with a + mb = 1 where m = valent number of A; n = 0-6).  
 An aqueous composition containing acrylic acid-Bu methacrylate-2-hydroxyethyl acrylate-  
 Me methacrylate-styrene copolymer dimethylethanolamine salt, Cymel 235, and 0.5 phr I  
 (A = NH4, M = Zr, a = 0.013, b = 0.987, n = 0) showed good storage stability for 1 mo  
 and was electrodeposited on an Al plate to a 10- $\mu$ m thickness to form a plate with good  
 appearance and bactericidal ability.  
 IT 207618-73-3P 207618-75-5P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered)



# 10/537,467-310163-EIC SEARCH

material use); PREP (Preparation); USES (Uses)  
(aqueous electrodepositing coatings containing specific  
silver bactericides for aluminum (alloys))

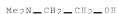
RN 207618-73-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
ethenylbenzene, 2-hydroxyethyl 2-propenoate, methyl  
2-methyl-2-propenoate and 2-propenoic acid, compd. with  
2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0

CMF C4 H11 N O



CM 2

CRN 67953-58-6

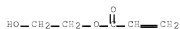
CMF (C8 H14 O2 . C8 H8 . C5 H8 O3 . C5 H8 O2 . C3 H4 O2)x

CCI PMS

CM 3

CRN 818-61-1

CMF C5 H8 O3



CM 4

CRN 100-42-5

CMF C8 H8



CM 5

CRN 97-88-1

CMF C8 H14 O2



CM 6

# 10/537,467-310163-EIC SEARCH

CRN 80-62-6  
CMF C5 H8 O2



CM 7

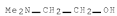
CRN 79-10-7  
CMF C3 H4 O2



RN 207618-75-5 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with butyl  
2-methyl-2-propenoate, ethenylbenzene, 2-hydroxyethyl  
2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid,  
compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0  
CMF C4 H11 N O

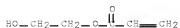


CM 2

CRN 207618-74-4  
CMF (C8 H14 O2 . C8 H8 . C5 H8 O3 . C5 H8 O2 . C4 H6 O2 . C3 H4  
O2)x  
CCI PMS

CM 3

CRN 818-61-1  
CMF C5 H8 O3



CM 4

CRN 100-42-5

# 10/537,467-310163-EIC SEARCH

CMF C8 H8



CM 5

CRN 97-88-1

CMF C8 H14 O2



CM 6

CRN 80-62-6

CMF C5 H8 O2



CM 7

CRN 79-41-4

CMF C4 H6 O2



CM 8

CRN 79-10-7

CMF C3 H4 O2



IC ICM C25D013-00  
ICS C09D005-14; C09D005-44; C25D013-06  
CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5, 56  
ST electrodeposition aq coating silver bactericide

## 10/537,467-310163-EIC SEARCH

- aluminum; storage stability silver bactericide electrodeposition coating
- IT Electrodeposits  
(aqueous dispersions containing specific silver bactericides for aluminum (alloys))
- IT Acrylic polymers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(aqueous electrodepositing coatings containing specific silver bactericides for aluminum (alloys))
- IT 147787-35-7P, Ammonium silver zirconium phosphate  
( $(\text{NH}_4)_0.99\text{Ag}_0.01\text{Zr}_2(\text{PO}_4)_3$ )  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(aqueous electrodepositing coatings containing specific silver bactericides for aluminum (alloys))
- IT 207618-73-3P 207618-75-5P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(aqueous electrodepositing coatings containing specific silver bactericides for aluminum (alloys))
- IT 7429-90-5, Aluminum, miscellaneous  
RL: MSC (Miscellaneous)  
(aqueous electrodepositing coatings containing specific silver bactericides for aluminum (alloys))
- IT 15438-04-7P, Zirconium phosphate  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(for bactericide manufacture; aqueous electrodepositing coatings containing specific silver bactericides for aluminum (alloys))
- IT 7722-76-1, Ammonium dihydrophosphate 7761-88-8, Silver nitrate, reactions 14644-61-2, Zirconium sulfate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(for bactericide manufacture; aqueous electrodepositing coatings containing specific silver bactericides for aluminum (alloys))

L77 ANSWER 16 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 1997:475598 HCAPLUS Full-text

DOCUMENT NUMBER: 127:122738

ORIGINAL REFERENCE NO.: 127:23667a,23670a

TITLE: Antifouling poly(ethylene terephthalate) films for agricultural use

INVENTOR(S): Yamagishi, Hiroshi; Suga, Mutsuo; Obayashi, Atsushi; Onishi, Shunichi

PATENT ASSIGNEE(S): Mitsubishi Kasei Vinyl K. K., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

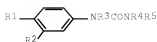
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE         |
|------------------------|------|----------|-----------------|--------------|
| JP 09164642            | A    | 19970624 | JP 1995-327075  | 1995<br>1215 |
|                        |      |          | <--             |              |
| PRIORITY APPLN. INFO.: |      |          | JP 1995-327075  | 1995<br>1215 |
|                        |      |          | <--             |              |

OTHER SOURCE(S): MARPAT 127:122738

ED Entered STN: 30 Jul 1997

GI



II

AB The films, useful for greenhouses, etc., comprise biaxially drawn poly(ethylene terephthalate) (I) films, one side of which is coated with acrylic polymer coatings containing UV absorbers, 21 phenylurea derivative II (R<sub>1</sub> = H, halo, lower alkyl, lower alkoxy, p-ClPhO, p-MeOPhO; R<sub>2</sub> = H, halo, CF<sub>3</sub>, OCONHMe<sub>3</sub>; R<sub>3</sub>, R<sub>4</sub> = H, lower alkyl; R<sub>5</sub> = H, lower alkyl, lower alkoxy, o-MeC<sub>6</sub>H<sub>10</sub>; CMe<sub>2</sub>C<sub>6</sub>H<sub>5</sub>; CHMeCCH), and Zn dimethyldithiocarbamate (III) and the other side of which is coated with coatings from (a) aqueous dispersion of hydrophobic acrylic polymers with glass-transition temperature 35-80°, (b) 100 parts inorg. colloid sol, and (c) 0.01-30 parts water-soluble inorg. Cl derivs. Thus, an acrylic polymer solution containing 6.5 parts allyl acrylate-allyl methacrylate-Bu acrylate-Me methacrylate-styrene graft copolymer and 13.5 parts Et methacrylate-Me methacrylate copolymer (solid content 20%) was blended with 2-(2'-hydroxy-5'-tert-butylphenyl)benzotriazole 14, dichlorophenyldimethylurea 2.5, and III 2.5 parts, applied on a biaxially drawn I and a composition containing Bu methacrylate-Me methacrylate copolymer 2.0, colloidal silica 3.0, HCl 0.0004, and H<sub>2</sub>O/EtOH (3/1) 95 parts was applied on the other side of the I film to give a film showing good adhesion of coatings to I, good transparency, and good antiblocking and antifouling property.

IT 25585-75-5P, Acrylic acid-ethyl acrylate-methyl methacrylate-styrene copolymer 38622-62-7P, Acrylic acid-2-ethylhexyl acrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer 52030-79-2P, Acrylic acid-ethyl acrylate-2-hydroxyethyl methacrylate-methyl methacrylate-styrene copolymer  
 RL: AGR (Agricultural use); IMF (Industrial manufacture); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)

(antifouling transparent poly(ethylene terephthalate) films for agricultural use)

RN 25585-75-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, ethyl 2-propenoate and 2-propenoic acid (CA INDEX NAME)

CM 1

CRN 140-88-5

CMF C5 H8 O2



CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 80-62-6  
CMF C5 H8 O2

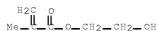
CM 4

CRN 79-10-7  
CMF C3 H4 O2

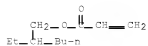
RN 38622-62-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with  
2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate and  
2-propenoic acid (CA INDEX NAME)

CM 1

CRN 868-77-9  
CMF C6 H10 O3

CM 2

CRN 103-11-7  
CMF C11 H20 O2

CM 3

CRN 80-62-6  
CMF C5 H8 O2



CM 4

CRM 79-10-7  
CMF C3 H4 O2



RN 52030-79-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with  
ethenylbenzene, ethyl 2-propenoate, methyl 2-methyl-2-propenoate  
and 2-propenoic acid (CA INDEX NAME)

CM 1

CRM 868-77-9  
CMF C6 H10 O3



CM 2

CRM 140-88-5  
CMF C5 H8 O2



CM 3

CRM 100-42-5  
CMF C8 H8



CM 4

CRM 80-62-6

CMF C5 H8 O2



CM 5

CRN 79-10-7  
CMF C3 H4 O2



- IC ICM B32B027-36  
ICS A01G009-14; B32B027-18; B32B027-30; C08J007-04
- CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 5, 42
- ST antifouling polyethylene terephthalate agricultural film; coating  
antifouling transparent PET film greenhouse; acrylic antifouling  
coating UV absorber phenylurea; zinc thiocarbamate acrylic coating  
antifouling; inorg colloid sol chlorine antifouling  
coating
- IT 25585-75-5P, Acrylic acid-ethyl acrylate-methyl  
methacrylate-styrene copolymer 25608-33-7P, Butyl  
methacrylate-methyl methacrylate copolymer 38622-62-7P  
, Acrylic acid-2-ethylhexyl acrylate-2-hydroxyethyl  
methacrylate-methyl methacrylate copolymer 52030-79-2P  
, Acrylic acid-ethyl acrylate-2-hydroxyethyl methacrylate-methyl  
methacrylate-styrene copolymer 116843-65-3P, Allyl  
acrylate-allyl methacrylate-butyl acrylate-1,3-butylene  
dimethacrylate-methyl methacrylate graft copolymer 116843-70-0P,  
Allyl acrylate-allyl methacrylate-butyl acrylate-methyl  
methacrylate-styrene graft copolymer  
RL: AGR (Agricultural use); IMF (Industrial manufacture); PRP  
(Properties); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(antifouling transparent poly(ethylene terephthalate) films for  
agricultural use)
- IT 7631-86-9, Silica, uses  
RL: AGR (Agricultural use); MOA (Modifier or additive use); PRP  
(Properties); BIOL (Biological study); USES (Uses)  
(colloidal; antifouling transparent poly(ethylene  
terephthalate) films for agricultural use)

L77 ANSWER 17 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 1997:283950 HCAPLUS Full-text

DOCUMENT NUMBER: 126:260442

ORIGINAL REFERENCE NO.: 126:50345a,50348a

TITLE: Aqueous acrylic resin  
emulsions containing N-alkylpolyamines  
and long-lasting antifouling agents

INVENTOR(S): Nohashi, Kenzo; Saeki, Yasushi; Ando, Masahiro

PATENT ASSIGNEE(S): Katayama Chemical Works Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese



## 10/537,467-310163-EIC SEARCH

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE         |
|------------------------|------|----------|-----------------|--------------|
| JP 09052803            | A    | 19970225 | JP 1995-202530  | 1995<br>0808 |
|                        |      |          | <--             |              |
| PRIORITY APPLN. INFO.: |      |          | JP 1995-202530  | 1995<br>0808 |
|                        |      |          | <--             |              |

OTHER SOURCE(S): MARPAT 126:260442

ED Entered STN: 03 May 1997

AB Title agents comprise emulsions manufactured by emulsion polymerization of (meth)acrylic monomers and optional other monomers in aqueous media in the presence of R[NH(CH<sub>2</sub>)<sub>3</sub>]nNH<sub>2</sub> [I; R = aliphatic C8-28 (β-hydroxy)hydrocarbyl, C8-28 alkoxy(C1-6 alkyl); n = 1-5]. Bu acrylate 20, Me methacrylate 15, and acrylic acid 5 g were polymerized in an aqueous solution containing I (R = oleyl, n = 3) HCl salt at 70° for 5 h to give a resin emulsion, 70 parts of which was mixed with acrylic resin 3, coumarone resin 3, and H<sub>2</sub>O 24 parts and applied to a fish net to prevent adhesion of marine organisms for ≥3 mo.

IT 26300-51-6P, Acrylic acid-butyl acrylate-methyl methacrylate copolymer  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(long-lasting antifouling agents comprising aqueous acrylic resin emulsions containing alkylpolyamines)

RN 26300-51-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and 2-propenoic acid (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



IC ICM A01N033-04  
ICS A01N025-04; A01N025-10; A01N025-22; A01N033-08; C08F002-24;  
C08F002-44

CC 5-4 (Agrochemical Bioregulators)  
Section cross-reference(s): 42

ST antifouling polyacrylate emulsion polyamine coating

IT Amines, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); BUU (Biological use,  
unclassified); BIOL (Biological study); USES (Uses)  
(coco alkyl; long-lasting antifouling agents comprising  
aqueous acrylic resin emulsions containing  
alkylpolyamines)

IT Antifouling agents  
(marine; long-lasting antifouling agents comprising aq  
. acrylic resin emulsions containing alkylpolyamines)

IT Amines, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); BUU (Biological use,  
unclassified); BIOL (Biological study); USES (Uses)  
(tallow alkyl; long-lasting antifouling agents comprising  
aqueous acrylic resin emulsions containing  
alkylpolyamines)

IT 56-18-8D, Dipropylentriamine, N-tallow alkyl derivs. 78-90-0D,  
Propylenediamine, N-tallow alkyl derivs. 4605-14-5D,  
Tripropylenetetramine, N-fatty alkyl derivs. 67228-83-5  
185997-67-5 185997-70-0  
RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); BUU (Biological use,  
unclassified); BIOL (Biological study); USES (Uses)  
(long-lasting antifouling agents comprising aqueous  
acrylic resin emulsions containing alkylpolyamines)

IT 25265-15-0P, 2-Ethylhexyl acrylate-methyl methacrylate copolymer  
25767-47-9P, Butyl acrylate-styrene copolymer 25852-37-3P, Butyl  
acrylate-methyl methacrylate copolymer 26300-51-6P,  
Acrylic acid-butyl acrylate-methyl methacrylate copolymer  
27136-15-8P, Butyl acrylate-methyl methacrylate-styrene copolymer  
30473-93-9P, Methyl methacrylate-stearyl methacrylate copolymer  
130261-89-1P  
RL: BUU (Biological use, unclassified); SPN (Synthetic  
preparation); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(long-lasting antifouling agents comprising aqueous  
acrylic resin emulsions containing alkylpolyamines)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE  
THIS RECORD (1 CITINGS)

L77 ANSWER 18 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
ACCESSION NUMBER: 1997:223964 HCAPLUS Full-text  
DOCUMENT NUMBER: 126:213429  
ORIGINAL REFERENCE NO.: 126:41257a,41260a  
TITLE: Antifogging acrylic compositions  
INVENTOR(S): Ishimaru, Kazutomi  
PATENT ASSIGNEE(S): Okamoto Co Ltd, Japan  
SOURCE: Jpn. Kokai Tokyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1

## 10/537,467-310163-EIC SEARCH

## PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 09040941 | A    | 19970210 | JP 1995-195365  | 1995<br>0731 |

## PRIORITY APPLN. INFO.:

<--  
JP 1995-195365

1995  
0731

ED Entered STN: 07 Apr 1997

AB Title compns. contain acrylic polymers with a glass-transition temperature (Tg) 40-75°, nonionic surfactants, and 3-crystalline layer-containing infinitely expandable clay minerals in water and/or alc. solvents. An elec. corona-treated polyethylene film was sprayed with a composition of acrylic acid-Bu methacrylate-2-ethylhexyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-Me methacrylate copolymer (with Tg 60°) 0.2, a sugar ester 0.01, an epoxy crosslinker 0.01, a 4% hectorite-containing aq. dispersion 5.0, water 30, and iso-PROH 20 parts and dried at 90° for 5 min to form a film with good antifogging ability initially and after 4 wk.

IT 188001-60-7P, Acrylic acid-butyl methacrylate-2-ethylhexyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(smectite mineral-containing antifogging acrylic coatings for plastic films)

RN 188001-60-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, 2-ethylhexyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9  
CMF C6 H10 O3



CM 2

CRN 103-11-7  
CMF C11 H20 O2



CM 3

CRN 97-88-1  
CMF C8 H14 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



CM 6

CRN 79-10-7

CMF C3 H4 O2



IC ICM C09K003-18

ICS A01G009-14; C08J007-04; C09D005-00; C09D007-12; C09D133-08  
42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 5

IT 188001-60-7P, Acrylic acid-butyl

methacrylate-2-ethylhexyl acrylate-2-hydroxyethyl

methacrylate-methacrylic acid-methyl methacrylate copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered  
material use); PREP (Preparation); USES (Uses)(smectite mineral-containing antifogging acrylic coatings for  
plastic films)

L77 ANSWER 19 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:573942 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 122:308762

ORIGINAL REFERENCE NO.: 122:56037a,56040a

TITLE: Storage and dilution of stable aqueous  
dispersions

## 10/537,467-310163-EIC SEARCH

INVENTOR(S): Mulqueen, Patrick Joseph; Banks, Graham;  
 Lubetkin, Steven Duff; Fowles, Andrew Mark  
 PATENT ASSIGNEE(S): DowElanco, USA  
 SOURCE: PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|---|------|----------|-----------------|--------------|
| WO 9507614  | A1   | 19950323 | WO 1994-US10416 | 1994<br>0914 |
| <--   |      |          |                 |              |
| W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI,<br>GB, HU, JP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ,<br>PL, PT, RO, RU, SD, SE, SI, SK, UA, US, UZ<br>RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL,<br>PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN,<br>TD, TG |      |          |                 |              |
| CA 2171848  | A1   | 19950323 | CA 1994-2171848 | 1994<br>0914 |
| <--   |      |          |                 |              |
| CA 2171848  | C    | 20070102 |                 |              |
| AU 9478355  | A    | 19950403 | AU 1994-78355   | 1994<br>0914 |
| <--   |      |          |                 |              |
| AU 691835   | B2   | 19980528 |                 |              |
| BR 9407501  | A    | 19960625 | BR 1994-7501    | 1994<br>0914 |
| <--   |      |          |                 |              |
| EP 719086   | A1   | 19960703 | EP 1994-929214  | 1994<br>0914 |
| <--   |      |          |                 |              |
| EP 719086   | B1   | 20060621 |                 |              |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC,<br>NL, PT, SE  |      |          |                 |              |
| HU 74022  | A2   | 19961028 | HU 1996-655     | 1994<br>0914 |
| <--   |      |          |                 |              |
| HU 217665   | B    | 20000328 |                 |              |
| JP 09510180   | T    | 19971014 | JP 1995-509350  | 1994<br>0914 |
| <--   |      |          |                 |              |
| JP 3843122  | B2   | 20061108 |                 |              |
| AT 330469   | T    | 20060715 | AT 1994-929214  | 1994<br>0914 |
| <--   |      |          |                 |              |
| ES 2263150  | T3   | 20061201 | ES 1994-929214  | 1994<br>0914 |
| <--   |      |          |                 |              |
| ZA 9407147  | A    | 19960315 | ZA 1994-7147    | 1994<br>0915 |
| <--   |      |          |                 |              |
| IL 110993   | A    | 19980715 | IL 1994-110993  |              |

## 10/537,467-310163-EIC SEARCH

1994  
0918

US 6074986 A 20000613 US 1996-615326

1996  
0802

PRIORITY APPLN. INFO.:

GB 1993-19129 A 1993  
0915

WO 1994-US10416 W 1994  
0914

ED Entered STN: 26 May 1995

AB A formulation e.g., a pesticidal formulation in the form of a dispersion comprising a continuous aqueous phase, and a discontinuous phase comprising a non-aqueous material capable of transport through the aqueous phase to cause Ostwald ripening of the dispersion, wherein there is contained within the discontinuous phase a pesticidal material, which may or may not be the said non-aqueous material, wherein the discontinuous phase comprises a stabilizer in an amount sufficient to depress migration of the non-aqueous material through the aqueous phase, and thereby diminish or prevent Ostwald ripening of the dispersion, characterized in that the stabilizer has a mol. weight of not more than 10,000, and is soluble in the discontinuous phase, but insol. in and not transportable through the aqueous phase. The production of the formulation can be carried out in a metered in-line mixing plant, since the thermodyn. of the mixing process of such that the particle size tends to a predictable value.

IT 111740-36-4, Atlox 4913  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(pesticidal stable aqueous dispersions)

RN 111740-36-4 HCAPLUS

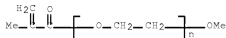
CN 2-Propenoic acid, 2-methyl-, polymer with methyl  
2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propen-1-yl)-  
 $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

CCI PMS



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-41-4  
CMF C4 H6 O2

CH2  
Me-ll-CO2H

IC ICM A01N025-04  
ICS A01N025-28; B01F017-00; B01J013-00  
CC 5-6 (Agrochemical Bioregulators)  
ST pesticide formulation aq dispersion  
IT Solvents  
(pesticidal stable aqueous dispersions)  
IT Aromatic hydrocarbons, biological studies  
Siloxanes and Silicones, biological studies  
RI: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(pesticidal stable aqueous dispersions)  
IT Agrochemical formulations  
Fungicides and Fungistats  
Herbicides  
Insecticides  
Pesticides  
(stable aqueous dispersions)  
IT 90-12-0, 1-Methylnaphthalene 108-88-3, Toluene, biological studies 112-62-9, Methyl oleate 122-32-7, Glyceryl trioleate 1330-20-7, Xylene, biological studies 2921-88-2, Chlorpyrifos 9002-89-5 9003-11-6, Ethyleneoxide/propyleneoxide copolymer 9003-27-4 9003-53-6, Polystyrene 9003-95-6, Polyvinylstearate 9004-57-3, Ethyl cellulose 25190-06-1 25322-69-4, Polypropylene glycol 25639-21-8, Polyoctadecylmethacrylate 29387-86-8, Dowanol PnB 67564-91-4, Fenpropimorph 69377-81-7, Fluroxypyr 111740-36-4, Atlox 4913 124495-18-7 163648-62-2, Atlox 4912  
RI: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(pesticidal stable aqueous dispersions)  
OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)  
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
  
L77 ANSWER 20 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
ACCESSION NUMBER: 1995:951923 HCAPLUS Full-text  
DOCUMENT NUMBER: 124:59727  
ORIGINAL REFERENCE NO.: 124:11201a,11204a  
TITLE: Chitosan-polymer composites, their manufacture, and their compositions with good antimicrobial properties and durability  
INVENTOR(S): Yoshikawa, Takeshi; Tsuruya, Katsumasa; Umeyama, Kanetoshi; Onozaki, Toshio; Kuwamura, Shinichi; Yoshino, Fumio  
PATENT ASSIGNEE(S): Tochigi Prefecture, Japan; Dainippon Ink & Chemicals  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE  | APPLICATION NO. | DATE  |
|------------|------|-------|-----------------|-------|
| -----      | ---- | ----- | -----           | ----- |

## 10/537,467-310163-EIC SEARCH

JP 07242772

A

19950919

JP 1992-5191

1992

0114

&lt;--

PRIORITY APPLN. INFO.:

JP 1992-5191

1992

0114

&lt;--

ED Entered STN: 30 Nov 1995

AB Title compns. contain organic binders and chitosan-polymer composites prepared by polymerization of  $\alpha, \beta$ -ethylenically unsatd. monomers in the presence of decomposed chitosan in aqueous media and optionally removing the aqueous media to give powders. The compns. are useful as antimicrobial agents for fibers, etc. Thus, Me methacrylate, ethylene glycol dimethacrylate, styrene, divinylbenzene, acrylic acid, and N-methylolacrylamide were emulsion polymerized in the presence of cellulase-treated decomposed chitosan to give a composite, which was mixed with Finedic to give a durable composition showing good antimicrobial properties for Staphylococcus epidermidis.

IT 132176-73-99

RL: PNU (Preparation, unclassified); POF (Polymer in formulation);

TEM (Technical or engineered material use); PREP (Preparation);

USES (Uses)

(chitosan-polymer composites, their manufacture, and their compns.

with good antimicrobial properties and durability)

RN 132176-73-9 HCAPLUS

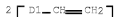
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with diethenylbenzene, ethenylbenzene, N-(hydroxymethyl)-2-propenamide, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 1321-74-0

CMF C10 H10

CCI IDS



CM 2

CRN 924-42-5

CMF C4 H7 N O2



CM 3

CRN 100-42-5

CMF C8 H8

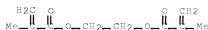




CM 4

CRN 97-90-5

CMF C10 H14 O4



CM 5

CRN 80-62-6

CMF C5 H8 O2



CM 6

CRN 79-10-7

CMF C3 H4 O2



IC ICM C08L005-08

ICS A61K047-36; C08F002-16; C08F002-44; C08L101-00

CC 44-5 (Industrial Carbohydrates)

Section cross-reference(s): 5, 38, 40

IT Polymerization

(emulsion, chitosan-polymer composites, their manufacture, and their compons. with good antimicrobial properties and durability)

IT 9012-76-4DP, Chitosan, hydrolyzed 132176-73-9P

RL: PNU (Preparation, unclassified); POF (Polymer in formulation);

TEM (Technical or engineered material use); PREP (Preparation);

USES (Uses)

(chitosan-polymer composites, their manufacture, and their compons. with good antimicrobial properties and durability)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L77 ANSWER 21 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 1994:109529 HCAPLUS Full-text

DOCUMENT NUMBER: 120:109529

# 10/537,467-310163-EIC SEARCH

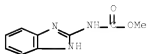
ORIGINAL REFERENCE NO.: 120:19327a,19330a  
 TITLE: Dispersions of biocidal polymers  
 INVENTOR(S): Huth, Hans Ullrich; Linder, Wolfgang  
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany  
 SOURCE: Ger. Offen., 12 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                    | KIND   | DATE        | APPLICATION NO. | DATE               |
|---|--|-------------|-----------------|--------------------|
| DE 4142731                                    | A1   | 19930624    | DE 1991-4142731 | 1991<br>1221       |
| CA 2085323                                    | A1   | 19930622    | CA 1992-2085323 | 1992<br>1214       |
| EP 548726                                     | A1   | 19930630    | EP 1992-121241  | 1992<br>1214       |
| EP 548726                                     | B1   | 19950920    |                 |                    |
| R: AT, BE, DE, ES, FR, GB, GR, IE, IT, NL, SE |  |             |                 |                    |
| AT 128151                                     | T  | 19951015    | AT 1992-121241  | 1992<br>1214       |
| ES 2079777                                    | T3   | 19960116    | ES 1992-121241  | 1992<br>1214       |
| AU 9230205                                    | A  | 19930624    | AU 1992-30205   | 1992<br>1217       |
| AU 654221                                     | B2   | 19941027    |                 |                    |
| JP 05255020                                   | A  | 19931005    | JP 1992-339328  | 1992<br>1218       |
| US 5252321                                    | A  | 19931012    | US 1992-994138  | 1992<br>1221       |
| US 5319093                                    | A  | 19940607    | US 1993-39923   | 1993<br>0329       |
| PRIORITY APPLN. INFO.:                        |  |             | DE 1991-4142731 | A<br>1991<br>1221  |
|   |  |             | US 1992-994138  | A3<br>1992<br>1221 |
| ED  | Entered STN:   | 05 Mar 1994 |                 |                    |
| AB  | The title <i>dispersions</i> , having algicidal and fungicidal activity and useful in coatings, plaster, textile finishing, etc., contain copolymers of BCM salts of unsatd. carboxylic, sulfonic, or phosphonic acids. Emulsion polymerization of MMA 182.1, Bu acrylate 183.1, and acrylic acid 11.25 g containing 1.1 g BCM gave a 44.7% dispersion |             |                 |                    |

# 10/537,467-310163-EIC SEARCH

of copolymer with min. film-forming temperature 7° and BCM content 0.28%. This dispersion was used in coatings with good activity vs. fungi and algae.

IT 152751-52-5P 153245-08-0P  
153245-10-4P  
RL: PREP (Preparation)  
(biocidal, aqueous dispersions, manufacture of)  
RN 152751-52-5 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl  
2-propenoate and 2-propenoic acid, compd. with methyl  
1H-benzimidazol-2-ylcarbamate (9CI) (CA INDEX NAME)  
CM 1  
CRN 10605-21-7  
CMF C9 H9 N3 O2



CM 2  
CRN 26300-51-6  
CMF (C7 H12 O2 . C5 H8 O2 . C3 H4 O2)x  
CCI PMS

CM 3  
CRN 141-32-2  
CMF C7 H12 O2



CM 4  
CRN 80-62-6  
CMF C5 H8 O2



CM 5  
CRN 79-10-7  
CMF C3 H4 O2



RN 153245-08-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, methyl 1H-benzimidazol-2-ylcarbamate mono[2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonate], methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRM 141-32-2

CMF C7 H12 O2



CM 2

CRM 100-42-5

CMF C8 H8



CM 3

CRM 80-62-6

CMF C5 H8 O2



CM 4

CRM 79-41-4

CMF C4 H6 O2



CM 5

# 10/537,467-310163-EIC SEARCH

CRN 79-10-7  
CMF C3 H4 O2

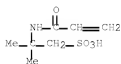


CM 6

CRN 153245-07-9  
CMF C9 H9 N3 O2 . C7 H13 N O4 S

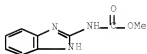
CM 7

CRN 15214-89-8  
CMF C7 H13 N O4 S



CM 8

CRN 10605-21-7  
CMF C9 H9 N3 O2



RN 153245-10-4 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, methyl 1H-benzimidazol-2-ylcarbamate mono(2-methyl-2-propenoate), methyl 1H-benzimidazol-2-ylcarbamate mono-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2  
CMF C7 H12 O2



# 10/537,467-310163-EIC SEARCH

CM 2

CRN 80-62-6  
CMF C5 H8 O2



CM 3

CRN 79-41-4  
CMF C4 H6 O2



CM 4

CRN 79-10-7  
CMF C3 H4 O2

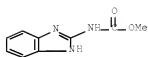


CM 5

CRN 153245-09-1  
CMF C9 H9 N3 O2 . C3 H4 O2

CM 6

CRN 10605-21-7  
CMF C9 H9 N3 O2



CM 7

CRN 79-10-7  
CMF C3 H4 O2



CM 8

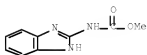
CRN 153245-05-7

CMF C9 H9 N3 O2 . C4 H6 O2

CM 9

CRN 10605-21-7

CMF C9 H9 N3 O2



CM 10

CRN 79-41-4

CMF C4 H6 O2



IC ICM C08F020-04  
 ICS C08F022-02; C08F028-02; C08F030-02; C08F012-30; C08F020-58;  
 C08F020-60; C08F008-44; C07D235-32; C07D235-30; C09D005-14;  
 A01N047-18  
 ICA C08F002-24; C08F002-20; C09D135-00; C09D141-00; C09D143-02;  
 C09D125-18; C09D133-24; C09D133-04  
 CC 42-5 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 5, 40, 43  
 IT Algicides  
 Fungicides and Fungistats  
 (BCM copolymers, in aqueous dispersion)  
 IT 152751-52-5P 153245-06-8P 153245-08-0P  
 153245-10-4P 153245-11-5P  
 RL: PREP (Preparation)  
 (biocidal, aqueous dispersions, manufacture of)  
 OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE  
 THIS RECORD (4 CITINGS)

L77 ANSWER 22 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 1992:216432 HCAPLUS Full-text  
 DOCUMENT NUMBER: 116:216432  
 ORIGINAL REFERENCE NO.: 116:36669a,36672a  
 TITLE: Antiblocking marine antifouling coating  
 materials  
 INVENTOR(S): Okamoto, Yoshihiro; Hasegawa, Yoshiki

## 10/537,467-310163-EIC SEARCH

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 04008773 | A    | 19920113 | JP 1990-108812  | 1990<br>0426 |

PRIORITY APPLN. INFO.: <--  
 JP 1990-108812  
 1990  
 0426  
 <--

ED Entered STN: 31 May 1992  
 AB The title materials contain, as vehicles, aqueous dispersions of organic components (A) and inorg. components wherein the A is obtained by emulsion polymerization of unsatd. monomers in the presence of colloidal silica (I). Thus, 2-ethylhexyl acrylate 40, Me methacrylate 59, acrylic acid 1, and  $\gamma$ -methacryloxypropyltrimethoxysilane 0.5 were polymerized in an aqueous emulsion containing Snowtex (I) 30 parts at 60-70° and neutralized by aqueous NH3 to give a 40%-solid dispersion, 50 parts of which was mixed with Texanol 5, Ph3SnOH 5, Cu2O 35, red iron oxide 3, and ethylene glycol 2 part to give a coating composition. A sandblasted steel sheet coated with the composition showed drying time 5 h, good blocking resistance, and marine fouling area 0% after 36 mo in ocean.

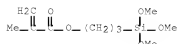
IT 101992-11-4P  
 RL: PREP (Preparation)  
 (preparation of, by emulsion polymerization in presence of colloidal silica, for antiblocking antifouling coatings)  
 RN 101992-11-4 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl 2-propenoate, 2-propenoic acid and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 92488-31-8  
 CMF (C11 H20 O2 . C10 H20 O5 Si . C5 H8 O2 . C3 H4 O2)x  
 CCI PMS

CM 2

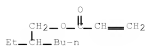
CRN 2530-85-0  
 CMF C10 H20 O5 Si



CM 3

CRN 103-11-7  
 CMF C11 H20 O2





CM 4  
CRN 80-62-6  
CMF C5 H8 O2



|     |          |
|-----|----------|
| CM  | 5        |
| CRN | 79-10-7  |
| CME | C3 H4 O2 |



```

IT      141137-84-0F      141137-85-1P
      RL: PREP (Preparation)
            (preparation of, by emulsion polymerization in presence of
            colloidal silica, for blocking-resistant antifouling
            coatings)
RN      141137-84-0      HCAPLUS
CN      2-Propenoic acid, 2-methyl-, methyl ester, polymer with
            ethenylbenzene, 2-ethylhexyl 2-propenoate, 2-propenoic acid and
            3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, ammonium salt
            (CA INDEX NAME)

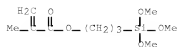
      CM      1

      CRN     128724-68-5
      CMF     (C11 H20 O2 . C10 H20 O5 Si . C8 H8 . C5 H8 O2 . C3 H4 O2)x
      CCI     PMS

      CM      2

      CRN     2530-85-0
      CMF     C10 H20 O5 Si

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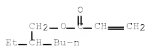


# 10/537,467-310163-EIC SEARCH

CM 3

CRN 103-11-7

CMF C11 H20 O2



CM 4

CRN 100-42-5

CMF C8 H8



CM 5

CRN 80-62-6

CMF C5 H8 O2



CM 6

CRN 79-10-7

CMF C3 H4 O2



RN 141137-85-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenyltriethoxysilane, 2-ethylhexyl 2-propenoate and 2-propenoic acid, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 109834-81-3

CMF (C11 H20 O2 . C8 H18 O3 Si . C5 H8 O2 . C3 H4 O2)x

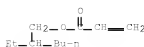
CCI PMS

CM 2

CRN 103-11-7

# 10/537,467-310163-EIC SEARCH

CMF C11 H20 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-10-7

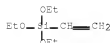
CMF C3 H4 O2



CM 5

CRN 78-08-0

CMF C8 H18 O3 S1



IC ICM C09D005-14

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 5

ST blocking resistance coating acrylic polymer; marine antifouling coating acrylic polymer; colloidal silica polyacrylate coating; emulsion polymn polyacrylate coating

IT Coating materials  
(antifouling, marine, paints, vinyl polymers, containing colloidal silica, with good blocking resistance)

IT Fouling control agents  
(coatings, marine paints, vinyl polymers, containing colloidal silica, with good blocking resistance)

IT Polymerization  
(emulsion, of vinyl monomers, in presence of colloidal silica, for antifouling coatings)

## 10/537,467-310163-EIC SEARCH

IT 1317-39-1, Cuprous oxide, miscellaneous  
 RL: MSC (Miscellaneous)  
 (antifouling agents, for aqueous vinyl polymer  
 dispersion coatings)

IT 7631-86-9, Silica, uses  
 RL: USES (Uses)  
 (colloidal, aqueous vinyl polymer  
 dispersion containing, for marine antifouling coatings)

IT 101992-11-4P  
 RL: PREP (Preparation)  
 (preparation of, by emulsion polymerization in presence of  
 colloidal silica, for antiblocking antifouling  
 coatings)

IT 141137-84-0P 141137-85-1P  
 RL: PREP (Preparation)  
 (preparation of, by emulsion polymerization in presence of  
 colloidal silica, for blocking-resistant antifouling  
 coatings)

L77 ANSWER 23 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1991:145657 HCAPLUS Full-text

DOCUMENT NUMBER: 114:145657

ORIGINAL REFERENCE NO.: 114:24699a,24702a

TITLE: Antifouling coating materials

INVENTOR(S): Kato, Naoyuki; Awata, Takeshi

PATENT ASSIGNEE(S): Mitsubishi Yuka Badische Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 03006266 | A    | 19910111 | JP 1989-140783  | 1989<br>0602 |

<--

PRIORITY APPLN. INFO.: JP 1989-140783

1989

0602

<--

OTHER SOURCE(S): MARPAT 114:145657

ED Entered STN: 19 Apr 1991

AB Coating materials contain aqueous anionic resin dispersions 100 (solids), quaternary ammonium cationic surfactants 3-50, and Cu ion-forming substances 5-70 parts. Thus, an antifouling coating material for nylon fish nets contains 8:8:189:195 acrylamide-acrylic acid-Bu acrylate-Me methacrylate copolymer ammonium salt (.apprx.50% solids) 100, Arguad S-50 (alkyltrimethylammonium chloride) 8, an amphoteric surfactant 20, Cu powder 40, butyl Cellosolve 8, and water 100 parts.

IT 118037-58-4, Acrylamide-acrylic acid-butyl acrylate-methyl methacrylate copolymer ammonium salt  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, containing quaternary ammonium compds. and copper,  
 antifouling, for nylon fish nets)

RN 118037-58-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl  
 2-propenoate, 2-propenamide and 2-propenoic acid, ammonium salt  
 (CA INDEX NAME)

CM 1

CRN 34447-72-8

CMF (C7 H12 O2 . C5 H8 O2 . C3 H5 N O . C3 H4 O2)x

CCI PMS

CM 2

CRN 141-32-2

CMF C7 H12 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-10-7

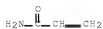
CMF C3 H4 O2



CM 5

CRN 79-06-1

CMF C3 H5 N O



IC ICM C09D005-14

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 5

IT 118037-58-4, Acrylamide-acrylic acid-butyl

acrylate-methyl methacrylate copolymer ammonium salt

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, containing quaternary ammonium compds. and copper, antifouling, for nylon fish nets)

L77 ANSWER 24 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:134365 HCAPLUS Full-text

DOCUMENT NUMBER: 112:134365

ORIGINAL REFERENCE NO.: 112:22605a,22608a

## 10/537,467-310163-EIC SEARCH

TITLE: Viscoelastic properties of aqueous concentrated pesticidal suspension concentrates

AUTHOR(S): Tadros, Th. F.; Zsednai, A.

CORPORATE SOURCE: Jealott's Hill Res. Stn., ICI Agrochem., Bracknell/Berkshire, RG12 9EY, UK

SOURCE: Colloids and Surfaces (1990), 43(1), 95-103

CODEN: COSUD3; ISSN: 0166-6622

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 13 Apr 1990

AB The viscoelastic properties of aqueous concentrated ethirimol suspensions, stabilized using a graft copolymer, e.g. Atlox 4913, was investigated as a function of the volume fraction of the suspension. Viscosity-volume fraction curves showed that the dispersions deviate from hard sphere dispersions due to the possible contribution of van der Waals attraction at close distances of separation. From the oscillatory measurements, the complex modulus  $G^*$ , storage modulus  $G'$  and loss modulus  $G''$  were obtained as a function of frequency at various suspension volume fractions. The results showed that the dispersion changed from being more viscous ( $G'' > G'$ ) to more elastic ( $G' > G''$ ) over a narrow range of volume fraction  $\phi$  of the dispersion ( $\phi > 0.5$ ). At this volume fraction, weak van der Waals attraction occurs, leading to an elastic structure. At very high volume fraction, the elastic structure is the result of strong repulsion between the copolymer chains which may undergo interpenetration and or compression when the distance of separation between the particles become comparable to twice the adsorbed layer thickness.

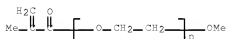
IT 111740-36-4  
RL: BIOL (Biological study)  
(viscoelasticity of ethirimol suspensions stabilized with)

RN 111740-36-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate and  $\alpha$ -(2-methyl-1-oxo-2-propen-1-yl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (CA INDEX NAME)

CM 1

CRN 26915-72-0  
CMF (C2 H4 O)n C5 H8 O2  
CCI PMS



CM 2

CRN 80-62-6  
CMF C5 H8 O2



CM 3

CRN 79-41-4  
CMF C4 H6 O2



CC 5-2 (Agrochemical Bioregulators)  
Section cross-reference(s): 66  
ST viscoelasticity pesticide suspension conc  
IT Viscoelasticity  
(of pesticidal suspension concs.)  
IT 111740-36-4  
RL: BIOL (Biological study)  
(viscoelasticity of ethirimol suspensions stabilized  
with)  
IT 23947-60-6, Ethirimol  
RL: BIOL (Biological study)  
(viscoelasticity of suspension concs. of)  
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE  
THIS RECORD (1 CITINGS)

L77 ANSWER 25 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
ACCESSION NUMBER: 1990:160641 HCAPLUS Full-text  
DOCUMENT NUMBER: 112:160641  
ORIGINAL REFERENCE NO.: 112:27143a,27146a  
TITLE: Aqueous dispersions of  
acrylic resins for coating compositions  
INVENTOR(S): Tsukamoto, Takeo  
PATENT ASSIGNEE(S): Mitsubishi Yuka Badische Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 01234416 | A    | 19890919 | JP 1988-59988   | 1988<br>0314 |
| JP 2544772  | B2   | 19961016 | JP 1988-59988   | 1988<br>0314 |

ED Entered STN: 28 Apr 1990  
AB The title comps. contain aqueous acrylic copolymers containing 0.3-2% epoxides and polyhydrazide dispersions. Thus, coatings from a mixture of 50% Me methacrylate-2-ethylhexyl acrylate-methacrylic acid-glycidyl methacrylate copolymer (I) dispersion and an aqueous dispersion of a reaction product of N2H4 with acrylamide-Me acrylate-Bu acrylate copolymer (NHNH2-CO + epoxy group equivalent ratio 0.8:1) had good adhesion and fouling and blocking resistance.  
IT 74521-17-8, 2-Ethylhexyl acrylate-glycidyl methacrylate-methacrylic acid-methyl methacrylate copolymer 126142-67-4, Diacetone acrylamide-2-ethylhexyl acrylate-glycidyl methacrylate-methacrylic acid-methyl methacrylate copolymer  
RL: USES (Uses)  
(latex coatings, resistant to blocking and fouling)

# 10/537,467-310163-EIC SEARCH

RN 74521-17-8 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethylhexyl  
 2-propenoate, methyl 2-methyl-2-propenoate and oxiranylmethyl  
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

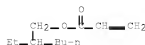
CM 1

CRN 106-91-2  
 CMF C7 H10 O3



CM 2

CRN 103-11-7  
 CMF C11 H20 O2



CM 3

CRN 80-62-6  
 CMF C5 H8 O2



CM 4

CRN 79-41-4  
 CMF C4 H6 O2



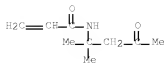
RN 126142-67-4 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with  
 N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, 2-ethylhexyl  
 2-propenoate, methyl 2-methyl-2-propenoate and oxiranylmethyl  
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1



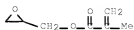
# 10/537,467-310163-EIC SEARCH

CRN 2873-97-4  
CMF C9 H15 N O2



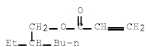
CM 2

CRN 106-91-2  
CMF C7 H10 O3



CM 3

CRN 103-11-7  
CMF C11 H20 O2



CM 4

CRN 80-62-6  
CMF C5 H8 O2



CM 5

CRN 79-41-4  
CMF C4 H6 O2



IC ICM C08G059-40  
ICS C08G059-20  
ICA C09D003-58; C09J003-16  
CC 42-7 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5  
IT 302-01-2D, Hydrazine, reaction products with acrylic polymers  
74521-17-8, 2-Ethylhexyl acrylate-glycidyl  
methacrylate-methacrylic acid-methyl methacrylate copolymer  
104357-51-9D, Ethyl acrylate-2-hydroxyethyl acrylate-methyl  
acrylate copolymer, reaction products with hydrazine  
123399-92-8D, Acrylamide-butyl acrylate-methyl acrylate copolymer,  
reaction products with hydrazine 126142-66-3, Acrylamide-butyl  
acrylate-glycidyl methacrylate-methyl methacrylate-styrene  
copolymer 126142-67-4, Diacetone  
acrylamide-2-ethylhexyl acrylate-glycidyl methacrylate-methacrylic  
acid-methyl methacrylate copolymer  
RL: USES (Uses)  
(latex coatings, resistant to blocking and fouling)

L77 ANSWER 26 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
ACCESSION NUMBER: 1989:596920 HCAPLUS Full-text  
DOCUMENT NUMBER: 111:196920  
ORIGINAL REFERENCE NO.: 111:32733a,32736a  
TITLE: Cement- or alkaline earth metal  
hydroxide-containing antifouling coating  
compositions  
INVENTOR(S): Kato, Naoyuki  
PATENT ASSIGNEE(S): Mitsubishi Yuka Badische Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE         |
|------------------------|------|----------|-----------------|--------------|
| JP 01108275            | A    | 19890425 | JP 1987-264967  | 1987<br>1020 |
|                        |      |          |                 | <--          |
| PRIORITY APPLN. INFO.: |      |          | JP 1987-264967  | 1987<br>1020 |

ED Entered STN: 25 Nov 1989  
AB The coatings contain 100 parts anionic polymer aqueous dispersions, 5-20 parts R13R2N+  
X- (I: R1 = Me, Et; R2 = C8-18 alkyl; X = halogen) cationic surfactants, and 20-400  
parts cement or water-insol. alkaline earth hydroxides. A composition of H2O 100,  
Ca(OH)2 20, Liponox NCJ (polyoxyethylene alkyl ether) 15, Arquad S 50 (I, R1 = Me, R2 =  
C16-18 aliphatic hydrocarbyl, X = Cl) 15, and acrylamide-acrylic acid-Bu acrylate-Me  
methacrylate copolymer ammonium salt (with [CO2H] 2.78 + 10-2 mol/100 g) 100 parts  
showed good storage stability (50°, 3 mo), adhesion to nylon fish nets, and antifouling  
effectiveness (.apprx.4 mo).  
IT 118037-58-4, Acrylamide-acrylic acid-butyl  
acrylate-methyl methacrylate copolymer ammonium salt  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(antifouling coatings, containing cationic surfactants and cement  
or alkaline earth metal hydroxides, storage-stable)  
RN 118037-58-4 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl  
2-propenoate, 2-propenamide and 2-propenoic acid, ammonium salt  
(CA INDEX NAME)

# 10/537,467-310163-EIC SEARCH

CM 1

CRN 34447-72-8

CMF (C7 H12 O2 . C5 H8 O2 . C3 H5 N O . C3 H4 O2)x

CCI PMS

CM 2

CRN 141-32-2

CMF C7 H12 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 79-06-1

CMF C3 H5 N O



IC ICM C09D005-08

ICS A01N025-24; A01N033-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 5, 46, 58

IT 118037-58-4, Acrylamide-acrylic acid-butyl

acrylate-methyl methacrylate copolymer ammonium salt

RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)

## 10/537,467-310163-EIC SEARCH

(antifouling coatings, containing cationic surfactants and cement  
or alkaline earth metal hydroxides, storage-stable)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE  
THIS RECORD (1 CITINGS)

L77 ANSWER 27 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
ACCESSION NUMBER: 1989:194794 HCAPLUS Full-text  
DOCUMENT NUMBER: 110:194794  
ORIGINAL, REFERENCE NO.: 110:32341a,32344a  
TITLE: Antimicrobial coatings containing cationic  
surfactants and 3-methyl-4-chlorophenol  
INVENTOR(S): Kato, Naoyuki  
PATENT ASSIGNEE(S): Mitsubishi Yuka Badische Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE         |
|------------------------|------|----------|-----------------|--------------|
| JP 01006071            | A    | 19890110 | JP 1987-161992  | 1987<br>0629 |
|                        |      |          | <--             |              |
| PRIORITY APPLN. INFO.: |      |          | JP 1987-161992  | 1987<br>0629 |
|                        |      |          | <--             |              |

OTHER SOURCE(S): MARPAT 110:194794

ED Entered STN: 26 May 1989

AB The coatings comprise anionic resin (containing CO<sub>2</sub>H 1.4 + 10-3-1.8 + 10-2 mol; in aqueous dispersions) 100, cationic surfactants R<sub>2</sub>R<sub>1</sub>3N<sup>+</sup> X<sup>-</sup> (I; R<sub>1</sub> = Me, Et; R<sub>2</sub> = C<sub>8</sub>-18 alkyl; X = halogen) 5-20, and 3-methyl-4-chlorophenol (II) or 2-phenylphenol 0.8-20%. A composition of II 2.5, Aqual S 50 (I, R<sub>1</sub> = Me, R<sub>2</sub> = 10:10:35:45% hexadecyl-octadecyl-octadecenyl- octadecadienyl; X = Cl) 15, Liponox NCJ (polyoxyethylene alkyl ether) 15, and ammonium salt of acrylic acid-acrylamide-Bu acrylate-Me methacrylate copolymer (CO<sub>2</sub>H 2.78 + 10-2 mol/100 g) 100 parts showed good storage stability and microbe resistance .apprx.4 mo. when coated on a fishnet.

IT 118037-58-4, Acrylamide-acrylic acidbutyl acrylatemethyl methacrylate copolymer ammonium salt

RL: USES (Uses)  
(emulsions, containing cationic surfactants and methylchlorophenol, antimicrobial)

RN 118037-58-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-propenamide and 2-propenoic acid, ammonium salt (CA INDEX NAME)

CM 1

CRN 34447-72-8

CMF (C7 H12 O2 . C5 H8 O2 . C3 H5 N O . C3 H4 O2)x

CCI PMS

CM 2

CRN 141-32-2

CMF C7 H12 O2

0  
n-BuO--CH=CH2

CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 79-06-1

CMF C3 H5 N O



IC ICM C09D005-14

ICS A01N033-12

ICI A01N033-12, A01N031-08

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 5

IT 118037-53-4, Acrylamide-acrylic acidbutyl acrylatemethyl methacrylate copolymer ammonium salt

RL: USES (Uses)

(emulsions, containing cationic surfactants and methylchlorophenol, antimicrobial)

L77 ANSWER 28 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1989:9769 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 110:9769

ORIGINAL REFERENCE NO.: 110:1757a,1760a

TITLE: Enzyme-containing antifouling emulsion coating compositions

INVENTOR(S): Kato, Naoyuki

PATENT ASSIGNEE(S): Mitsubishi Yuka Badische Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## 10/537,467-310163-EIC SEARCH

## PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 63202677 | A    | 19880822 | JP 1987-36356   | 1987<br>0219 |

PRIORITY APPLN. INFO.:

JP 1987-36356

1987

0219

OTHER SOURCE(S): MARPAT 110:9769

ED Entered STN: 06 Jan 1989

AB Title coatings which effectively prevent the accumulation of sea- and freshwater plant and animal species for 2100 days without the use of organotin compds. are formed by applying aqueous compns. of emulsion polymers 100, cationic surfactants RR1R2R3N+ X- (R = C8-18 alkyl; R1-3 = Me, Et; X = Cl, Br, I) 5-20, cellulases, proteases, and/or cell wall-lytic enzymes 0.1-10, C3-5 alkanedioic and/or C5-10 hydroxycarboxylic acids 0-7, and plasticizers 0-15 parts. Me methacrylate, Bu acrylate, acrylic acid, and acrylamide were polymerized in H2O containing emulsifiers and K2S2O8, then neutralized with NH3, and the resulting polymer 100, Arquad S 50 (C16-18 hydrocarbyltrimethylammonium chloride) 15, Liponox NCJ (nonionic surfactant) 15, cellulase 0.5, citric acid 0.2, di-Bu phthalate 10, and H2O 100 parts were mixed to form an emulsion with good storage stability. Nylon fish-nets were coated with this composition (20% pickup), dried 3 days at ambient temperature, and immersed in the sea, and no slime formation was observed after 4 mo although uncoated nets were fouled after 2 wk. A piece of the coated nylon net placed inside a tank effectively killed aquatic plants when the tank was drained and refilled with freshwater containing plants once/wk for 12 wk.

IT 118037-58-4, Acrylamide-acrylic acidbutyl acrylatemethyl methacrylate copolymer ammonium salt

RL: TEM (Technical or engineered material use); USES (Uses) (coatings, emulsion, containing cationic surfactants and enzymes, for aquatic fouling control)

RN 118037-58-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-propenamide and 2-propenoic acid, ammonium salt (CA INDEX NAME)

CM 1

CRN 34447-72-8

CMF (C7 H12 O2 . C5 H8 O2 . C3 H5 N O . C3 H4 O2)x

CCI PMS

CM 2

CRN 141-32-2

CMF C7 H12 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 79-06-1

CMF C3 H5 N O



- IC ICM C09D005-14  
ICS A01N063-00; C09D007-12
- IC I A01N063-00, A01N033-12, A01N037-04, A01N037-36
- CC 42-5 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 3, 7, 46
- ST antifouling coating cationic surfactant enzyme; slimicide  
quaternary ammonium antifouling coating; emulsion paint  
aquatic fouling prevention; cellulase antifouling coating;  
protease antifouling coating; acrylic antifouling coating;  
acrylamide copolymer antifouling coating; methacrylate copolymer  
antifouling coating; Arguad antifouling coating; diacid  
antifouling coating; hydroxy carboxylic acid antifouling coating;  
citric acid antifouling coating
- IT Herbicides  
(aquatic, controlled-release, emulsion polymer  
coatings, containing cationic surfactants and enzymes)
- IT Alcohols, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(carboxy, coatings, emulsion, containing cationic  
surfactants and enzymes, for aquatic fouling control)
- IT Carboxylic acids, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(di-, coatings, emulsion, containing cationic surfactants  
and enzymes, for aquatic fouling control)
- IT Carboxylic acids, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(hydroxy, coatings, emulsion, containing cationic  
surfactants and enzymes, for aquatic fouling control)
- IT 77-92-9, uses and miscellaneous 87-69-4, uses and miscellaneous  
526-95-4, D-Gluconic acid 6915-15-7 118037-58-4,  
Acrylamide-acrylic acidbutyl acrylatemethyl methacrylate copolymer  
ammonium salt  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, emulsion, containing cationic surfactants and

## 10/537,467-310163-EIC SEARCH

enzymes, for aquatic fouling control)

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE  
THIS RECORD (4 CITINGS)

L77 ANSWER 29 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
ACCESSION NUMBER: 1988:494897 HCAPLUS Full-text  
DOCUMENT NUMBER: 109:94897  
ORIGINAL REFERENCE NO.: 109:15831a,15834a  
TITLE: Storage-stable aqueous  
emulsions for antifouling coatings  
INVENTOR(S): Kato, Naoyuki  
PATENT ASSIGNEE(S): Mitsubishi Yuka Badische Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 63081177 | A    | 19880412 | JP 1986-226514  | 1986<br>0925 |

PRIORITY APPLN. INFO.: JP 1986-226514  
1986  
0925

ED Entered STN: 17 Sep 1988  
AB Antifouling coatings contain 100 parts anionic emulsions prepared from 100 parts mixture of unsatd. acids 0.1-1.3, C2-8 alkyl acrylates 40-55, Me methacrylate (I), styrene or acrylonitrile 30-55, and N-phenylmaleimide, N-methylolacrylamide, acrylamide (II), methacrylamide, or 2-hydroxyalkylacrylamide 1-10%, 1-5 parts anionic emulsifiers, and 0-5 parts nonionic emulsifiers, 5-20 parts cationic surfactants RLNR23+ X- (R1 = C8-18 alkyl; R2 = Me, Et; X = Cl, Br, I), and 0-15 parts plasticizers. Mixing 100 parts emulsion (prepared from I 195, Bu acrylate 189, acrylic acid 8, II 8, 20% polyoxyethylene p-nonylphenol ether (III) 20, and 35% III Na sulfate 5 parts) with di-Bu phthalate 5, H2O 100 and 50% Arquad 5-50 (C16-18-alkyltrimethylammonium chloride) 8 parts gave a composition with good storage stability.  
IT 34447-72-8 38808-37-6, Acrylamidebutyl acrylate-methacrylic acidmethyl methacrylate copolymer 116159-92-3 116159-93-4 116159-94-5  
RL: USES (Uses)  
(antifouling coating emulsions, storage-stable)  
RN 34447-72-8 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-propenamide and 2-propenoic acid (CA INDEX NAME)

CM 1

CRN 141-32-2  
CMF C7 H12 O2



CM 2

CRN 80-62-6



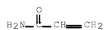
CMF C5 H8 O2



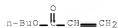
CM 3

 CRN 79-10-7  
 CMF C3 H4 O2


CM 4

 CRN 79-06-1  
 CMF C3 H5 N O

 RN 38808-37-6 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,  
 methyl 2-methyl-2-propenoate and 2-propenamide (CA INDEX NAME)

CM 1

 CRN 141-32-2  
 CMF C7 H12 O2


CM 2

 CRN 80-62-6  
 CMF C5 H8 O2


# 10/537,467-310163-EIC SEARCH

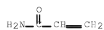
CM 3

CRM 79-41-4  
CMF C4 H6 O2



CM 4

CRM 79-06-1  
CMF C3 H5 N O



RN 116159-92-3 HCAPLUS

CN Butanedioic acid, 2-methylene-, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-propenamide and 2-propenoic acid (CA INDEX NAME)

CM 1

CRM 141-32-2  
CMF C7 H12 O2



CM 2

CRM 97-65-4  
CMF C5 H6 O4



CM 3

CRM 80-62-6  
CMF C5 H8 O2



CM 4

CRM 79-10-7

CMF C3 H4 O2



CM 5

CRM 79-06-1

CMF C3 H5 N O



RN 116159-93-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,  
2-hydroxypropyl 2-propenoate, methyl 2-methyl-2-propenoate and  
2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRM 999-61-1

CMF C6 H10 O3



CM 2

CRM 141-32-2

CMF C7 H12 O2



CM 3

CRM 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-41-4  
CMF C4 H6 O2



CM 5

CRN 79-10-7  
CMF C3 H4 O2



RN 116159-94-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl  
2-propenoate, 1-phenyl-1H-pyrrole-2,5-dione and 2-propenoic acid  
(9CI) (CA INDEX NAME)

CM 1

CRN 941-69-5  
CMF C10 H7 N O2



CM 2

CRN 141-32-2  
CMF C7 H12 O2



CM 3

CRM 80-62-6  
CMF C5 H8 O2

CM 4

CRM 79-10-7  
CMF C3 H4 O2

IC ICM C09D005-08  
ICS C09D003-80  
CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5  
ST antifouling coating emulsion; quaternary ammonium  
antifouling coating; acrylic acid copolymer coating; acrylate  
copolymer coating antifouling; methacrylate copolymer coating  
antifouling; ship hull antifouling coating  
IT Plasticizers  
(di-Bu phthalate, for emulsion antifouling coatings)  
IT Emulsifying agents  
(anionic, in antifouling emulsion coating manufacture)  
IT Coating materials  
(antifouling, acrylic polymer emulsions-quaternary  
ammonium salts, storage-stable)  
IT Fouling control agents  
(coatings, acrylic polymer emulsions-quaternary  
ammonium salts, storage-stable)  
IT Quaternary ammonium compounds, uses and miscellaneous  
RL: USES (Uses)  
(halides, in antifouling coating emulsions)  
IT Emulsifying agents  
(nonionic, in antifouling emulsion coating manufacture)  
IT Quaternary ammonium compounds, uses and miscellaneous  
RL: USES (Uses)  
(trimethylsoya alkyl, chlorides, in antifouling coating  
emulsions)  
IT 34447-72-8 38808-37-6, Acrylamidebutyl  
acrylate-methacrylic acidmethyl methacrylate copolymer  
116159-92-3 116159-93-4 116159-94-5  
RL: USES (Uses)  
(antifouling coating emulsions, storage-stable)  
IT 26027-38-3 31631-25-1  
RL: USES (Uses)  
(emulsifiers, in antifouling emulsion  
coating manufacture)  
IT 84-74-2, DBP  
RL: MOA (Modifier or additive use); USES (Uses)  
(plasticizers, for antifouling emulsion coating)  
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE

## 10/537,467-310163-EIC SEARCH

THIS RECORD (1 CITINGS)

L77 ANSWER 30 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1989:90645 HCAPLUS Full-text  
 DOCUMENT NUMBER: 110:90645  
 ORIGINAL REFERENCE NO.: 110:14889a,14892a  
 TITLE: Pesticidal formulations comprising a acrylic polymer dispersion agent  
 INVENTOR(S): Tadros, Tharwat Fouad  
 PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK  
 SOURCE: Eur. Pat. Appl., 16 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE              |
|---|------|----------|-----------------|-------------------|
| EP 289356   | A2   | 19881102 | EP 1988-303955  | 1988<br>0429      |
| EP 289356   | A3   | 19900314 | <--             |                   |
| EP 289356   | B1   | 19930616 |                 |                   |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |                   |
| US 5139773  | A    | 19920818 | US 1988-186437  | 1988<br>0426      |
| DK 8802353  | A    | 19881030 | DK 1988-2353    | 1988<br>0428      |
| DK 175268   | B1   | 20040802 | <--             |                   |
| JP 01117802   | A    | 19890510 | JP 1988-104353  | 1988<br>0428      |
| JP 2858753  | B2   | 19990217 | <--             |                   |
| AU 8815340  | A    | 19881103 | AU 1988-15340   | 1988<br>0429      |
| AU 608600   | B2   | 19910411 | <--             |                   |
| ZA 8803090  | A    | 19881228 | ZA 1988-3090    | 1988<br>0429      |
| AT 90507  | T    | 19930715 | AT 1988-303955  | 1988<br>0429      |
| CA 1326631  | C    | 19940201 | CA 1988-565607  | 1988<br>0429      |
| ES 2054802  | T3   | 19940816 | ES 1988-303955  | 1988<br>0429      |
| PRIORITY APPLN. INFO.:                                |      |          | GB 1987-10105   | A<br>1987<br>0429 |
|   |      |          | EP 1988-303955  | A                 |

1988

0429

&lt;--

ED Entered STN: 17 Mar 1989

AB A pesticidal formulation comprises a mixture of an active ingredient formulated as an emulsion and active ingredient(s) formulated as suspension. A block of graft copolymer dispersing agent is present, comprising  $\geq 1$  component of mol. weight  $\geq 250$ , solvatable in the aqueous medium and another component of mol. weight  $\geq 500$  having a min. degree of hydrophobicity. The weight ratio between the components is 10:1 to 1:2. The formulation is prepared by forming a millbase by milling pesticide(s) with water and surfactant. The millbase is stirred into an emulsion containing pesticide(s), surfactant and, optionally, oil base, emulsified into water containing the dispersing agent, and optionally containing urea, pre-swelled gel and bactericide. A solution of 70 g propiconazole was milled with 5.6 g Morwet D425 to give a millbase, which was stirred into an emulsion, made of 70 g propiconazole, 60 g Span 80 at 40 g Tween 40 in xylene, emulsified in an aqueous solution of 20 polymeric surfactant H190/396 (acrylic polymer) 135 g urea, and 10 g Goshenol GL05. The amount of water was such as to give 1 L formulation.

IT 119087-88-6, H 190/396

RL: BIOL (Biological study)

(dispersing agent, for pesticide formulations)

RN 119087-88-6 HCAPLUS

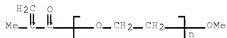
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propen-1-yl)- $\alpha$ -methoxypoly(oxy-1,2-ethanediyl) and 2-propenoic acid, graft (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



## 10/537,467-310163-EIC SEARCH

IC ICM A01N025-04  
 ICS A01N047-38; A01N043-40; A01N043-84  
 ICI A01N047-38, A01N047-18, A01N043-653, A01N043-50, A01N043-40;  
 A01N043-40, A01N037-18; A01N043-84, A01N043-653, A01N043-40,  
 A01N037-34  
 CC 5-6 (Agrochemical Bioregulators)  
 ST dispersing agent polyacrylate polymer formulation  
 IT Dispersing agents  
 (acrylic graft copolymer, for pesticide formulations)  
 IT Acrylic polymers, biological studies  
 RL: BIOL (Biological study)  
 (dispersing agents, for polymer formulations)  
 IT 119987-88-6, H 190/396  
 RL: BIOL (Biological study)  
 (dispersing agent, for pesticide formulations)  
 OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE  
 THIS RECORD (2 CITINGS)

L77 ANSWER 31 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1987:178185 HCAPLUS Full-text  
 DOCUMENT NUMBER: 106:178185  
 ORIGINAL REFERENCE NO.: 106:28921a,28924a  
 TITLE: Polymeric particles  
 INVENTOR(S): Redlich, George Harvey; Novak, Ronald William  
 PATENT ASSIGNEE(S): Rohm and Haas Co., USA  
 SOURCE: Eur. Pat. Appl., 43 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                    | KIND | DATE     | APPLICATION NO. | DATE         |
|---|------|----------|-----------------|--------------|
| EP 203724                                     | A2   | 19861203 | EP 1986-303180  | 1986<br>0428 |
|   |      |          | <--             |              |
| EP 203724                                     | A3   | 19890111 |                 |              |
| EP 203724                                     | B1   | 19911009 |                 |              |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE |      |          |                 |              |
| US 4677003                                    | A    | 19870630 | US 1985-728992  | 1985<br>0430 |
|   |      |          | <--             |              |
| CA 1285092                                    | C    | 19910618 | CA 1986-506801  | 1986<br>0416 |
|   |      |          | <--             |              |
| AU 8656516                                    | A    | 19861106 | AU 1986-56516   | 1986<br>0423 |
|   |      |          | <--             |              |
| AU 585974                                     | B2   | 19890629 |                 |              |
| IL 78606                                      | A    | 19900429 | IL 1986-78606   | 1986<br>0423 |
|   |      |          | <--             |              |
| BR 8601895                                    | A    | 19861230 | BR 1986-1895    | 1986<br>0428 |
|   |      |          | <--             |              |
| AT 68190                                      | T    | 19911015 | AT 1986-303180  | 1986<br>0428 |



## 10/537,467-310163-EIC SEARCH

|                        |  |          |                |      |
|------------------------|--|----------|----------------|------|
| CN 86103126            | A  | 19861029 | CN 1986-103126 |      |
|                        |  |          |                | 1986 |
|                        |  |          |                | 0430 |
|                        |  |          | <--            |      |
| CN 1017339             | B  | 19920708 |                |      |
| JP 61293213            | A  | 19861224 | JP 1986-98430  |      |
|                        |  |          |                | 1986 |
|                        |  |          |                | 0430 |
|                        |  |          | <--            |      |
| JP 07042340            | B  | 19950510 |                |      |
| US 4985064             | A  | 19910115 | US 1986-942312 |      |
|                        |  |          |                | 1986 |
|                        |  |          |                | 1216 |
|                        |  |          | <--            |      |
| CN 1041116             | A  | 19900411 | CN 1989-108103 |      |
|                        |  |          |                | 1989 |
|                        |  |          |                | 1018 |
|                        |  |          | <--            |      |
| CN 1023195             | C  | 19931222 |                |      |
| US 5225279             | A  | 19930706 | US 1990-606224 |      |
|                        |  |          |                | 1990 |
|                        |  |          |                | 1031 |
|                        |  |          | <--            |      |
| PRIORITY APPLN. INFO.: |  |          | US 1985-728992 | A    |
|                        |  |          |                | 1985 |
|                        |  |          |                | 0430 |
|                        |  |          | <--            |      |
|                        |  |          | EP 1986-303180 | A    |
|                        |  |          |                | 1986 |
|                        |  |          |                | 0428 |
|                        |  |          | <--            |      |
|                        |  |          | US 1986-942312 | A1   |
|                        |  |          |                | 1986 |
|                        |  |          |                | 1216 |
|                        |  |          | <--            |      |
| ED                     | Entered STN: 29 May 1987   |          |                |      |
| AB                     | An aqueous dispersion of water insol. core-shell particles, useful in coating, herbicidal, and biocidal compns., is prepared by emulsifying a mixture containing hydrophobic solvent (and/or organic target material), hydrophilic solvent, monoethylenically unsatd. monomers (2-4% being $\alpha,\beta$ -unsatd. carboxylic acid), surfactant, stabilizer, and initiator, polymerizing by heat, neutralizing the acid group with base, such as $\text{NH}_3$ , and, optionally, adding an addnl. monomer which can be polymerized on or in the core-shell particles. Thus, 100 parts of a mixture containing mineral spirits 55, pentanol 30, and Skane M-8 biocide 15 parts was added to 367 parts water and emulsified with a monomer mixture (containing Bu acrylate 10, Me methacrylate 88.5, and methacrylic acid 2.5 parts) 268, dioctyl phthalate 11, Monowet MO-70E surfactant 11, and lauroyl peroxide 9.3 parts. Then, 250 parts of this emulsion and 62.5 parts water was heated under N at 85-88° for 60 min, neutralized with 7.8 parts 5.6% aqueous $\text{NH}_3$ , and heated for addnl. 30 min at 85-88° to provide core-shell encapsulated biocide particles. Water-thinned Rhoplex AC-64 paint was spiked with the particles to 2g-active compound/1200 g paint to give a sample having 100% biocide remaining after 7 days at 60°. vs. 0 for a similar paint containing unencapsulated biocide. |          |                |      |
| IT                     | 55989-05-4P  |          |                |      |
|                        | RL: PREP (Preparation)   |          |                |      |
|                        | (preparation of, as core-shell microcapsules, in the encapsulation of Goal herbicide)  |          |                |      |
| RN                     | 55989-05-4 HCAPLUS   |          |                |      |
| CN                     | 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate, ammonium salt (CA INDEX NAME)   |          |                |      |
| CM                     | 1  |          |                |      |
| CRN                    | 25133-97-5   |          |                |      |
| CMF                    | (C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x  |          |                |      |

CCI PMS

CM 2

CRN 140-88-5

CMF C5 H8 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



IT 107935-25-1P

RL: PREP (Preparation)

(preparation of, as core-shell microcapsules, in the encapsulation of Me hexanoate)

RN 107935-25-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl  
2-methyl-2-propenoate, and 2-propenyl 2-methyl-2-propenoate,  
ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 107935-24-0

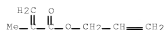
CMF (C7 H10 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 2

CRN 96-05-9

CMF C7 H10 O2



## 10/537,467-310163-EIC SEARCH

CM 3  
 CRN 80-62-6  
 CMF C5 H8 O2



CM 4  
 CRN 79-41-4  
 CMF C4 H6 O2



IT 42884-82-2P 107935-18-2P  
 107935-19-3P 107935-21-7P  
 107935-23-9P 107935-27-3P  
 107935-28-4P

RL: PREP (Preparation)

(preparation of, as core/shell microcapsules, for herbicide- or biocide-containing coatings)

RN 42884-82-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate, ammonium salt (CA INDEX NAME)

CM 1  
 CRN 25035-69-2  
 CMF (C7 H12 O2 . C5 H8 O2 . C4 H6 O2)x  
 CCI PMS

CM 2  
 CRN 141-32-2  
 CMF C7 H12 O2



CM 3  
 CRN 80-62-6  
 CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



RN 107935-18-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-propenenitrile and 2-propenyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 107935-17-1

CMF (C7 H12 O2 . C7 H10 O2 . C5 H8 O2 . C4 H6 O2 . C3 H3 N)x

CCI PMS

CM 2

CRN 141-32-2

CMF C7 H12 O2



CM 3

CRN 107-13-1

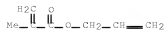
CMF C3 H3 N



CM 4

CRN 96-05-9

CMF C7 H10 O2



CM 5

CRN 80-62-6

CMF C5 H8 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



RN 107935-19-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate and 2-propenyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 25323-66-4

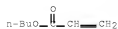
CMF (C8 H8 . C7 H12 O2 . C7 H10 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 2

CRN 141-32-2

CMF C7 H12 O2



CM 3

CRN 100-42-5

CMF C8 H8



CM 4

# 10/537,467-310163-EIC SEARCH

CRN 96-05-9  
CMF C7 H10 O2



CM 5

CRN 80-62-6  
CMF C5 H8 O2



CM 6

CRN 79-41-4  
CMF C4 H6 O2



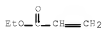
RN 107935-21-7 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 107935-20-6  
CMF (C8 H8 . C7 H10 O2 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x  
CCI PMS

CM 2

CRN 140-88-5  
CMF C5 H8 O2



CM 3

CRN 100-42-5  
CMF C8 H8



CM 4

CRN 96-05-9

CMF C7 H10 O2



CM 5

CRN 80-62-6

CMF C5 H8 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



RN 107935-23-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, methyl  
2-methyl-2-propenoate and 2-propenyl 2-methyl-2-propenoate,  
ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 107935-22-8

CMF (C8 H8 . C7 H10 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 96-05-9

CMF C7 H10 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



RN 107935-27-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethyl 2-propenoate, methyl 2-methyl-2-propenoate, and 2-propenyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 107935-26-2

CMF (C7 H12 O2 . C7 H10 O2 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 2

CRN 141-32-2

CMF C7 H12 O2





# 10/537,467-310163-EIC SEARCH

CM 3

CRN 140-88-5

CMF C5 H8 O2



CM 4

CRN 96-05-9

CMF C7 H10 O2



CM 5

CRN 80-62-6

CMF C5 H8 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



RN 107935-28-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, and 2-propenyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 92124-73-7

CMF (C7 H12 O2 . C7 H10 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 2

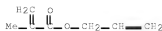
# 10/537,467-310163-EIC SEARCH

CRN 141-32-2  
CMF C7 H12 O2



CM 3

CRN 96-05-9  
CMF C7 H10 O2



CM 4

CRN 80-62-6  
CMF C5 H8 O2



CM 5

CRN 79-41-4  
CMF C4 H6 O2



IC ICM C08F002-00  
ICS C08F291-00; C08J003-12  
CC 42-5 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5, 37  
IT 55989-05-4P  
RL: PREP (Preparation)  
(preparation of, as core-shell microcapsules, in the encapsulation  
of Goal herbicide)  
IT 107935-25-1P  
RL: PREP (Preparation)  
(preparation of, as core-shell microcapsules, in the encapsulation  
of Me hexanoate)  
IT 42884-82-2P 107935-18-2P  
107935-19-3P 107935-21-7P  
107935-23-9P 107935-27-3P  
107935-28-4P

## 10/537,467-310163-EIC SEARCH

RL: PREP (Preparation)

(preparation of, as core/shell microcapsules, for herbicide- or biocide-containing coatings)

OS.CITING REF COUNT: 24 THERE ARE 24 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)

L77 ANSWER 32 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 1987:121472 HCAPLUS Full-text  
 DOCUMENT NUMBER: 106:121472  
 ORIGINAL REFERENCE NO.: 106:19845a,19848a  
 TITLE: High-build antifouling coatings for underwater structures  
 INVENTOR(S): Kanda, Kazunori; Mizuguchi, Ryuzo  
 PATENT ASSIGNEE(S): Nippon Paint Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 28 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE         |
|------------------------|------|----------|-----------------|--------------|
| EP 200433              | A2   | 19861105 | EP 1986-302912  | 1986<br>0418 |
| EP 200433              | A3   | 19880921 | <--             |              |
| EP 200433              | B1   | 19920122 |                 |              |
| R: DE, FR, GB, NL, SE  |      |          |                 |              |
| NO 8601489             | A    | 19861020 | NO 1986-1489    | 1986<br>0416 |
| NO 175822              | B    | 19940905 | <--             |              |
| NO 175822              | C    | 19941214 |                 |              |
| DK 8601758             | A    | 19861019 | DK 1986-1758    | 1986<br>0417 |
| BR 8601726             | A    | 19861216 | BR 1986-1726    | 1986<br>0417 |
| JP 62030164            | A    | 19870209 | JP 1986-90829   | 1986<br>0418 |
| JP 04065108            | B    | 19921019 | <--             |              |
| US 4769398             | A    | 19880906 | US 1986-853842  | 1986<br>0418 |
| PRIORITY APPLN. INFO.: |      |          | JP 1985-83439   | 1985<br>0418 |
|                        |      |          | <--             |              |

ED Entered STN: 17 Apr 1987

AB Self-polishing title coatings comprise film-forming polymers, solvents, and antifouling agent-containing crosslinked polymer microparticles. A mixture containing tributyltin methacrylate 5, triphenyltin hydroxide 7.5, Me methacrylate 15, styrene 5, ethylene glycol dimethacrylate 20, acrylonitrile 5, and 2,2'-azobis(2,4-dimethylvaleronitrile) 1 part was added dropwise over 1 h to a poly(vinyl alc.) emulsion and heated to 70° for 5 h to give an aqueous suspension of microparticles of mean diameter 25 µ. WW rosin 75, VYHH (PVC resin) 75, MIBK 50, and xylene 100 parts were mixed to form a varnish, 100

# 10/537,467-310163-EIC SEARCH

parts of which was mixed with the microparticles 30, xylene 20, and Cu2O 20 parts, and applied to a sandblasted steel plate precoated with anticorrosive paint. After immersion in the sea for 6 mo the coated plate showed no fouling, but one coated with a similar composition without the microparticles was covered with marine organisms over 15% of its surface.

IT 52522-03-9, Butyl acrylate-hydroxypropyl acrylate-methyl methacrylate-styrene copolymer 107192-06-3  
 RL: TEM (Technical or engineered material use); USES (Uses) (coatings, containing marine antifouling agents in crosslinked polymer microparticles, self-polishing)  
 RN 52522-03-9 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylbenzene and 1,2-propanediol mono-2-propenoate (CA INDEX NAME)

CM 1  
 CRN 141-32-2  
 CMF C7 H12 O2



CM 2  
 CRN 100-42-5  
 CMF C8 H8



CM 3  
 CRN 80-62-6  
 CMF C5 H8 O2



CM 4  
 CRN 25584-83-2  
 CMF C6 H10 O3  
 CCI IDS  
 CM 5  
 CRN 79-10-7  
 CMF C3 H4 O2



CM 6

CRN 57-55-6

CMF C3 H8 O2



RN 107192-06-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, methyl 2-propenoate, 1,2-propanediol mono-2-propenoate and tributyl[(2-methyl-1-oxo-2-propenyl)oxy]stannane (9CI) (CA INDEX NAME)

CM 1

CRN 2155-70-6

CMF C16 H32 O2 Sn



CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 96-33-3

CMF C4 H6 O2



CM 4

## 10/537,467-310163-EIC SEARCH

CRN 80-62-6  
CMF C5 H8 O2



CM 5

CRN 25584-83-2  
CMF C6 H10 O3  
CCI IDS

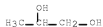
CM 6

CRN 79-10-7  
CMF C3 H4 O2



CM 7

CRN 57-55-6  
CMF C3 H8 O2



IC ICM C09D005-14  
CC 42-5 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5, 61  
IT 9002-85-1, Poly(vinylidene chloride) 9003-22-9, VYHH  
26354-18-7, Methyl methacrylate-tributyltin methacrylate copolymer  
52522-03-9, Butyl acrylate-hydroxypropyl acrylate-methyl  
methacrylate-styrene copolymer 107192-06-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, containing marine antifouling agents in crosslinked  
polymer microparticles, self-polishing)  
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE  
THIS RECORD (4 CITINGS)

L77 ANSWER 33 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1983:483743 HCAPLUS Full-text

DOCUMENT NUMBER: 99:83743

ORIGINAL REFERENCE NO.: 99:12861a,12864a

TITLE: Aqueous agrochemical  
suspension

PATENT ASSIGNEE(S): Toa Gosei Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

## 10/537,467-310163-EIC SEARCH

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE         |
|------------------------|------|----------|-----------------|--------------|
| JP 58072501            | A    | 19830430 | JP 1981-169451  | 1981<br>1024 |
|                        |      |          | <--             |              |
| JP 63025594            | B    | 19880526 |                 |              |
| PRIORITY APPLN. INFO.: |      |          | JP 1981-169451  | 1981<br>1024 |
|                        |      |          | <--             |              |

ED Entered STN: 12 May 1984

AB High concentration liquid agrochems. are formulated by suspending water-insol. or hardly water-soluble agrochems. in an ag. colloid solution (<0.1  $\mu$ m) of copolymers. Thus, NAC [63-25-2] was suspended in a 25% colloid solution (0.05-0.01  $\mu$ m) of Me metacrylate-Et acrylate-metacrylic acid copolymer [25133-97-5] (45:45:10) copolymer to 44.4%. The suspension was stable and readily diluted with water.

IT 25133-97-5

RL: BIOL (Biological study)  
(pesticide emulsion containing)

RN 25133-97-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 140-88-5

CMF C5 H8 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



## 10/537,467-310163-EIC SEARCH

IC A01N025-04  
 CC 5-6 (Agrochemical Bioregulators)  
 ST pesticide emulsion stabilization copolymer  
 IT Fungicides and Fungistats  
 Herbicides  
 Pesticides  
 (copolymer emulsions)  
 IT 63-25-2 80-33-1 87-41-2 94-74-6 97-53-0 101-05-3  
 108-60-1 121-29-9 122-14-5 122-34-9 133-06-2 137-26-8  
 333-41-5 575-36-0 709-98-8 2104-64-5 2425-10-7 2797-51-5  
 17109-49-8 63036-91-9  
 RL: BIOL (Biological study)  
 (emulsion containing copolymers and)  
 IT 9010-77-9 25133-97-5 31605-22-8  
 RL: BIOL (Biological study)  
 (pesticide emulsion containing)  
 IT 9011-14-7  
 RL: BIOL (Biological study)  
 (polymers with rosin, pesticide emulsion containing)  
 OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE  
 THIS RECORD (4 CITINGS)

L77 ANSWER 34 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 1984:47065 HCAPLUS Full-text  
 DOCUMENT NUMBER: 100:47065  
 ORIGINAL REFERENCE NO.: 100:7143a,7146a  
 TITLE: Polymer-UV composition for reducing water loss  
 by transpiration  
 INVENTOR(S): Delong, Charles Frederick  
 PATENT ASSIGNEE(S): Erion, George Leonard, III, USA  
 SOURCE: Pat. Specif. (Aust.), 21 pp.  
 CODEN: ALXXAP  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE         |
|------------------------|------|----------|-----------------|--------------|
| -----                  | ---- | -----    | -----           |              |
| AU 528251              | B2   | 19830421 | AU 1980-60281   | 1980<br>0709 |
|                        |      |          | <--             |              |
| AU 8060281             | A    | 19800925 |                 |              |
| PRIORITY APPLN. INFO.: |      |          | AU 1980-60281   | 1980<br>0709 |

ED Entered STN: 12 May 1984  
 AB A composition for protecting plants from water loss due to transpiration and from damages from wind and cold contains an aqueous solution or dispersion of ahydrophilic acrylic polymer containing free carboxyl groups, a cross-linking agent for said polymer, and an UV-absorbing agent. Thus, a homogeneous dispersion containing water (120 L), a terpolymer methyl methacrylate-Et methacrylate-acrylic acid polymer (56-30-14%) [ 34306-73-5] (30 L), a cross-linking agent Epon 812 [31305-91-6] (3 L), and 2-ethoxyethyl p-methoxycinnamate [104-28-9] (80 mL) was sprayed on an ornamental pepper plant. The treated plant was unaffected by freezing conditions (15°F) for 6 h whereas the untreated control experienced drooping and freeze damage. Addnl., pesticides such as Sevin [63-25-2] and liquid fertilizers can be incorporated in the spray.  
 IT 25133-97-5 34306-73-5  
 RL: BIOL (Biological study)  
 (antitranspirant composition containing, for plants)  
 RN 25133-97-5 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate (CA INDEX NAME)



# 10/537,467-310163-EIC SEARCH

CM 1

CRN 140-88-5

CMF C5 H8 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



RN 34306-73-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-propenoic acid (CA INDEX NAME)

CM 1

CRN 97-63-2

CMF C6 H10 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-10-7  
CMF C3 H4 O2

IC A01G007-06; C08L033-12; C08L033-08; C08J003-24; C08G081-02;  
A01N003-00  
CC 5-3 (Agrochemical Bioregulators)  
IT 63-25-2 104-28-9 151-56-4, biological studies 1336-21-6  
9002-98-6 9003-08-1 13236-02-7 24012-08-6 25068-38-6  
25085-35-2 25133-97-5 31305-91-6  
34306-73-5  
RL: BIOL (Biological study)  
(antitranspirant composition containing, for plants)

L77 ANSWER 35 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1980:463612 HCAPLUS Full-text  
DOCUMENT NUMBER: 93:63612  
ORIGINAL REFERENCE NO.: 93:10303a,10306a  
TITLE: Plant growth inhibiting composition  
INVENTOR(S): Delong, Charles Frederick; Erion, George  
Leonard, III  
PATENT ASSIGNEE(S): USA  
SOURCE: Braz. Pedido PI, 27 pp.  
CODEN: BPXXDX  
DOCUMENT TYPE: Patent  
LANGUAGE: Portuguese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE         |
|------------|------|----------|-----------------|--------------|
| -----      | ---- | -----    | -----           | -----        |
| BR 7707845 | A    | 19790612 | BR 1977-7845    | 1977<br>1025 |

PRIORITY APPLN. INFO.: <--  
BR 1977-7845 A  
1977  
1025  
<--

ED Entered STN: 12 May 1984

AB A composition containing and aqueous suspension of a hydrophilic acrylic polymer which is not water- soluble and a derivative of maleic hydrazide was capable of slowly releasing the growth inhibiting substance. Thus, it controls the excessive growth of plants during the rainy season. An aqueous suspension containing methyl methacrylate-Et methacrylate-acrylic acid copolymers [ 34306-73-5] and as active ingredient, 4,5-dibromomaleic hydrazide [27083-50-7], is given as an example.

IT 27083-50-7  
RL: BIOL (Biological study)  
(controlled-release plant growth regulator containing acrylic polymers and)

RN 27083-50-7 HCAPLUS

CN 2-Propenoic acid, polymer with butyl 2-propenoate and methyl  
2-propenoate (CA INDEX NAME)

CM 1

CRM 141-32-2  
CMF C7 H12 O2

CM 2

CRM 96-33-3  
CMF C4 H6 O2

CM 3

CRM 79-10-7  
CMF C3 H4 O2

IT 25135-39-1 34306-73-5

RL: BIOL (Biological study)

(controlled-release plant growth regulators containing maleic hydrazide and)

RN 25135-39-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate and 2-propenoic acid (CA INDEX NAME)

CM 1

CRM 140-88-5  
CMF C5 H8 O2

CM 2

CRM 80-62-6  
CMF C5 H8 O2



CM 3

CRM 79-10-7  
CMF C3 H4 O2



RN 34306-73-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with methyl  
2-methyl-2-propenoate and 2-propenoic acid (CA INDEX NAME)

CM 1

CRM 97-63-2  
CMF C6 H10 O2



CM 2

CRM 80-62-6  
CMF C5 H8 O2



CM 3

CRM 79-10-7  
CMF C3 H4 O2



IC A01N005-00; A01N017-02

CC 5-3 (Agrochemicals)

IT 123-33-1 2797-52-6 15456-83-4 27083-50-7

## 10/537,467-310163-EIC SEARCH

RL: BIOL (Biological study)  
(controlled-release plant growth regulator containing acrylic  
polymers and)

IT 25085-35-2 25135-39-1 34306-73-5

RL: BIOL (Biological study)  
(controlled-release plant growth regulators containing maleic  
hydrazide and)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE  
THIS RECORD (1 CITINGS)

L77 ANSWER 36 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 1977:585995 HCAPLUS Full-text

DOCUMENT NUMBER: 87:185995

ORIGINAL REFERENCE NO.: 87:29381a,29384a

TITLE: Controlling allergens

INVENTOR(S): Johnson, Charles E.

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 5 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| -----      | ---- | -----    | -----           |      |
| -----      |      |          |                 |      |
| US 4048369 | A    | 19770913 | US 1975-640206  |      |

1975  
1212

<--

PRIORITY APPLN. INFO.: US 1975-640206

1975  
1212

<--

ED Entered STN: 12 May 1984

AB Comps. for controlling allergens in fabrics by reducing the activity of pyroglyphid mites and their debris contain aq. dispersions of hydrophobic, nonnutritive, flexible polymers with min. film-forming temperature <30° and glass temperature <20°. Thus, a 10% latex of 15:63:22 acrylic acid-ethyl acrylate-methyl methacrylate copolymer [25135-39-1], glass temperature 14°, min. film-forming temperature 14°, is sponged (10 g/ft2) on a mattress, giving mite control for 6-12 months.

IT 25133-97-5 25135-39-1

RL: USES (Uses)

(coatings, for mite control on fabrics)

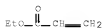
RN 25133-97-5 HCAPLUS

CM 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and  
methyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 140-88-5

CMF C5 H8 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-41-4  
CMF C4 H6 O2

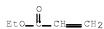


RN 25135-39-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl  
2-propenoate and 2-propenoic acid (CA INDEX NAME)

CM 1

CRN 140-88-5  
CMF C5 H8 O2



CM 2

CRN 80-62-6  
CMF C5 H8 O2



CM 3

CRN 79-10-7  
CMF C3 H4 O2



IC B05D007-24  
INCL 428262000

## 10/537,467-310163-EIC SEARCH

CC 39-6 (Textiles)  
 Section cross-reference(s): 5, 42  
 IT 25035-82-9 25085-35-2 25119-83-9 25133-97-5  
 25135-39-1  
 RL: USES (Uses)  
 (coatings, for mite control on fabrics)  
 OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE  
 THIS RECORD (7 CITINGS)

L77 ANSWER 37 OF 48 HCAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 1973:543533 HCAPLUS Full-text  
 DOCUMENT NUMBER: 79:143533  
 ORIGINAL REFERENCE NO.: 79:23261a,23264a  
 TITLE: Granular pesticidal composition easily  
 disintegratable in water  
 INVENTOR(S): Nakai, Masahiro; Koito, Katsutoshi; Kajiware,  
 Hideyuki  
 PATENT ASSIGNEE(S): Sanyo Chemical Industries Ltd.  
 SOURCE: Jpn. Tokkyo Koho, 4 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|-------------|------|----------|-----------------|--------------|
| JP 48001501 | B4   | 19730118 | JP 1970-73582   | 1970<br>0821 |

&lt;--

ED Entered STN: 12 May 1984  
 AB Water-soluble or water-dispersible polymers containing unsatd. carboxylic acids or derivs. thereof as the monomer-unit were added to granular pesticide preps. to improve the disintegrating property and spreading property of granules. Acrylic acid polymer [9003-01-4], methacrylic acid polymer [25087-26-7], acrylic acid-methacrylic acid copolymer [25751-21-7], acrylic acid-Me acrylate copolymer [25302-81-2], acrylic acid-vinyl acetate copolymer [24980-58-3] and maleic acid-styrene copolymer [25300-64-5] were the polymers used. Thus, a mixture of 5% dimethoate [60-51-5], 5% white carbon, 30% bentonite, 5% talc. and 3% acrylic acid-methacrylic acid copolymer triethanolamine salt [43212-12-0] was granulated by a drum-granulator.  
 IT 25322-25-2  
 RL: BIOL (Biological study)  
 (in granular pesticide formulations)  
 RN 25322-25-2 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
 2-propenoic acid (CA INDEX NAME)  
 CM 1  
 CRN 80-62-6  
 CMF C5 H8 O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



IC A01N  
 CC 5-13 (Agrochemicals)  
 IT 9003-01-4 24980-58-3 25087-26-7 25300-64-5  
 25322-25-2 25751-21-7  
 RL: BIOL (Biological study)  
 (in granular pesticide formulations)

L77 ANSWER 38 OF 48 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1972:476812 HCAPLUS Full-text  
 DOCUMENT NUMBER: 77:76812  
 ORIGINAL REFERENCE NO.: 77:12669a,12672a  
 TITLE: Copolymeric coating compositions for enhancing  
 the germination of seeds  
 INVENTOR(S): Graves, Thomas M.  
 SOURCE: U.S., 2 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE              |
|------------------------|------|----------|-----------------|-------------------|
| US 3598565             | A    | 19710810 | US 1968-748617  | 1968<br>0730      |
| US 3707807             | A    | 19730102 | US 1970-94559   | 1970<br>1202      |
| PRIORITY APPLN. INFO.: |      |          |                 | US 1968-748617 A3 |
|                        |      |          |                 | 1968<br>0730      |

ED Entered STN: 12 May 1984  
 AB Seeds are treated with an aqueous copolymer emulsion which not only provides a protective coating, but also enhances germination rate and viability of the emerging seedling. The emulsion contains vinyl acetate-macrylic 25-2813 copolymer, Joncryl 85 [25322-25-2], and N-(trichloromethylthio)tetrahydrophthalimide [133-06-2].  
 IT 25322-25-2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, containing (trichloromethylthio)tetrahydrophthalimide, on seeds, for improved germination)  
 RN 25322-25-2 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
 2-propenoic acid (CA INDEX NAME)  
 CM 1  
 CRN 80-62-6  
 CMF C5 H8 O2





CM 2

CRN 79-10-7  
CMF C3 H4 O2

IC A01N; A01C  
INCL 071077000  
CC 42-7 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 5  
IT 25322-25-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, containing (trichloromethylthio)tetrahydrophthalimide,  
on seeds, for improved germination)  
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE  
THIS RECORD (2 CITINGS)

=&gt; d 177 39-48 ibib ab hit ind

L77 ANSWER 39 OF 48 BIOSIS COPYRIGHT (c) 2009 The Thomson  
Corporation on STN

ACCESSION NUMBER: 2003:413988 BIOSIS Full-text

DOCUMENT NUMBER: PREV200300413988

TITLE: Nanoprecipitation technique for the encapsulation  
of agrochemical active ingredients.AUTHOR(S): Boehm, A. L. [Reprint Author]; Martinon, I.;  
Zerrouk, R.; Rump, E.; Fessi, H.CORPORATE SOURCE: Laboratoire de Pharmacie Galenique, Faculte de  
Pharmacie, UMR 5007, 8 Avenue Rockefeller, 69373,  
Lyon Cedex 08, FranceSOURCE: Journal of Microencapsulation, (July-August  
2003) Vol. 20, No. 4, pp. 433-441. print.  
ISSN: 0265-2048 (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 10 Sep 2003

Last Updated on STN: 10 Sep 2003

AB In 1997, a research programme was initiated to assess the ability of nanospheres (NS) to improve the biodelivery of a new insecticide to plants. Stable polymeric NS, with a size near 135 nm and an encapsulation rate in the range of 3.5%, have been obtained using a nanoprecipitation method with Eudragit S100 polymer. Biological studies have been performed on cotton plants infested with aphid, to estimate the direct contact efficacy of NS formulations on the insects and the systemicity of the encapsulated active ingredient and its level of penetration through the plant, compared to a classical suspension used as a reference. Results indicate that NS formulations are not so good as the reference in terms of speed of action and sustained release. Nevertheless, NS formulation performed better than the reference to enhance the systemicity of the AI and improve its penetration through the plant. It is concluded that the NS do not provide a controlled release of AI but, due to their small size, they enhance the penetration in the plant compared to the classical suspension.

SO Journal of Microencapsulation, (July-August 2003) Vol. 20, No. 4, pp. 433-441. print.

ISSN: 0265-2048 (ISSN print).

AB In 1997, a research programme was initiated to assess the ability of nanospheres (NS) to improve the biodelivery of a new insecticide to plants. Stable polymeric NS, with a size near 135 nm and an encapsulation rate in the range of 3.5%, have been obtained using a nanoprecipitation method with Eudragit S100 polymer. Biological studies have been performed on cotton plants infested with aphid, to estimate the direct contact efficacy of NS formulations on the insects and the systemicity of the encapsulated active ingredient and its level of penetration through the plant, compared to a classical suspension used as a reference. Results indicate that NS formulations are not so good as the reference in terms of speed of action and sustained release. Nevertheless, NS formulation performed better than the reference to enhance the systemicity of the AI and improve its penetration through the plant. It is concluded that the NS do not provide a controlled release of AI but, due to their small size, they enhance the penetration in the plant compared to the classical suspension.

RN 25086-15-1 (Eudragit S100)

CC Pest control: general, pesticides and herbicides 54600

IT Major Concepts

Methods and Techniques; Pesticides

IT Chemicals &amp; Biochemicals

Eudragit S100: polymer; insecticides

IT Methods &amp; Equipment

encapsulation: laboratory techniques; nanoprecipitation:  
laboratory techniques

ORGN Classifier

Malvaceae 26330

Super Taxa

Dicotyledones; Angiospermae; Spermatophyta; Plantae

Organism Name

cotton (common)

Taxa Notes

Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

RN 25086-15-1 (Eudragit S100)

L77 ANSWER 40 OF 48 BIOSIS COPYRIGHT (c) 2009 The Thomson  
Corporation on STNACCESSION NUMBER: 2003:384053 BIOSIS [Full-text](#)

DOCUMENT NUMBER: PREV200300384053

TITLE: Physicochemical properties to determine the  
buoyancy of hollow microspheres (microballoons)  
prepared by the emulsion solvent  
diffusion method.AUTHOR(S): Sato, Yasunori [Reprint Author]; Kawashima,  
Yoshiaki; Takeuchi, Hirofumi; Yamamoto, Hiromitsu  
CORPORATE SOURCE: Teikoku Hormone Mfg. Co., Ltd., 1604,  
Shimosakunobe, Takatsuku, Kawasaki, Kanagawa,  
213-8522, Japansatou-y@kw.teikoku-hormone.co.jp  
SOURCE: European Journal of Pharmaceutics and  
Biopharmaceutics, (May 2003) Vol. 55, No.  
3, pp. 297-304. print.  
ISSN: 0939-6411 (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 20 Aug 2003

Last Updated on STN: 20 Aug 2003

AB Hollow microspheres (microballoons) floatable on JPXIII Number 1 solution were developed as a dosage form capable of floating in the stomach. Hollow microspheres were prepared by the emulsion solvent diffusion method using enteric acrylic polymers with drug in a mixture of dichloromethane and ethanol. It was found that preparation temperature determined the formation of cavity inside the microsphere and the surface smoothness, determining the floatability and the drug release rate of the microballoon. The correlation between the buoyancy of microballoons and their physical properties, e.g. apparent density and roundness of microballoons were elucidated. The drug loading efficiency of microballoons with various types of drug was investigated and correlated to the distribution coefficient of drug between dichloromethane and water. The optimum loading amount of riboflavin in the microballoon was found to impart ideal floatable properties to the microballoons. On the other hand, little entrapment was observed for

- aspirin due to the low distribution coefficient; however, entrapment improved to some extent upon reduction of the pH of the process.
- TI Physicochemical properties to determine the buoyancy of hollow microspheres (microballoons) prepared by the emulsion solvent diffusion method.
- SO European Journal of Pharmaceutics and Biopharmaceutics, (May 2003) Vol. 55, No. 3, pp. 297-304. print.  
ISSN: 0939-6411 (ISSN print).
- AB Hollow microspheres (microballoons) floatable on JPXIII Number 1 solution were developed as a dosage form capable of floating in the stomach. Hollow microspheres were prepared by the emulsion solvent diffusion method using enteric acrylic polymers with drug in a mixture of dichloromethane and ethanol. It was found that preparation temperature determined the formation of cavity inside the microsphere and the surface smoothness, determining the floatability and the drug release rate of the microballoon. The correlation between the buoyancy of microballoons and their physical properties, e.g. apparent density and roundness of microballoons were elucidated. The drug loading efficiency of microballoons with various types of drug was investigated and correlated to the distribution coefficient of drug between dichloromethane and water. The optimum loading amount of riboflavin in the microballoon was found to impart ideal floatable properties to the microballoons. On the other hand, little entrapment was observed for aspirin due to the low distribution coefficient; however, entrapment improved to some extent upon reduction of the pH of the process.
- IT Methods & Equipment  
emulsion solvent diffusion method: laboratory techniques; floating controlled drug delivery system: clinical techniques; hollow microsphere [microballoon]: drug delivery device
- IT Miscellaneous Descriptors  
drug release rate; microsphere buoyancy; microsphere porosity
- RN 25086-15-1 (Eudragit S100)  
25086-15-1 (methyl acid)  
83-88-5 (riboflavin)
- CC Biochemistry studies - Vitamins 10063  
Pathology - Therapy 12512  
Pharmacology - General 22002
- IT Major Concepts  
Methods and Techniques; Pharmaceuticals (Pharmacology)
- IT Chemicals & Biochemicals  
Eudragit S100 [methyl acid]; riboflavin
- IT Methods & Equipment  
emulsion solvent diffusion method: laboratory techniques; floating controlled drug delivery system: clinical techniques; hollow microsphere [microballoon]: drug delivery device
- IT Miscellaneous Descriptors  
drug release rate; microsphere buoyancy; microsphere porosity
- RN 25086-15-1 (Eudragit S100)  
25086-15-1 (methyl acid)  
83-88-5 (riboflavin)
- L77 ANSWER 41 OF 48 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
- ACCESSION NUMBER: 2003:551904 BIOSIS [Full-text](#)
- DOCUMENT NUMBER: PREV200300554870
- TITLE: Preparation of polymeric nanoparticles containing corticosteroid by a novel aerosol flow reactor method.
- AUTHOR(S): Eerikainen, Hannele; Kauppinen, Esko I. [Reprint Author]
- CORPORATE SOURCE: Aerosol Technology Group, VTT Processes, FIN-02044, P.O. Box 1602, Espoo, Finland  
esko.kauppinen@vtt.fi
- SOURCE: International Journal of Pharmaceutics (Kidlington), (16 September 2003) Vol. 263, No. 1-2, pp. 69-83. print.  
ISSN: 0378-5173 (ISSN print).
- DOCUMENT TYPE: Article

# 10/537,467-310163-EIC SEARCH

LANGUAGE: English  
 ENTRY DATE: Entered STN: 26 Nov 2003  
 Last Updated on STN: 26 Nov 2003

- AB Polymeric drug-containing nanoparticles were prepared using a novel aerosol flow reactor method. The polymeric drug-containing nanoparticles prepared consist of a poorly water soluble corticosteroid, beclomethasone dipropionate, and polymeric materials Eudragit E 100 or Eudragit L 100. The novel method used in this study allows synthesis of nanoparticles directly as dry powders. The nanoparticles can contain various ratios of drug and polymer, and the use of any additional stabilisation materials is avoided. In this study, nanoparticles with different drug-to-polymer ratios were prepared. Particle size and morphology, crystallinity, and thermal behaviour were determined as a function of particle composition. It was found that all the nanoparticles produced, regardless of particle composition, had geometric number mean diameters of approximately 90 nm, and were spherical showing smooth surfaces. The drug was molecularly dispersed in the amorphous polymeric matrix of the nanoparticles, and drug crystallisation was not observed when the ambient temperature was below the glass transition temperature of the polymer.
- SO International Journal of Pharmaceutics (Kidlington), (16 September 2003) Vol. 263, No. 1-2, pp. 69-83. print. ISSN: 0378-5173 (ISSN print).
- AB Polymeric drug-containing nanoparticles were prepared using a novel aerosol flow reactor method. The polymeric drug-containing nanoparticles prepared consist of a poorly water soluble corticosteroid, beclomethasone dipropionate, and polymeric materials Eudragit E 100 or Eudragit L 100. The novel method used in this study allows synthesis of nanoparticles directly as dry powders. The nanoparticles can contain various ratios of drug and polymer, and the use of any additional stabilisation materials is avoided. In this study, nanoparticles with different drug-to-polymer ratios were prepared. Particle size and morphology, crystallinity, and thermal behaviour were determined as a function of particle composition. It was found that all the nanoparticles produced, regardless of particle composition, had geometric number mean diameters of approximately 90 nm, and were spherical showing smooth surfaces. The drug was molecularly dispersed in the amorphous polymeric matrix of the nanoparticles, and drug crystallisation was not observed when the ambient temperature was below the glass transition temperature of the polymer.
- RN 24938-16-7 (Eudragit E 100)  
 25086-15-1 (Eudragit L 100)  
 5534-09-8 (beclomethasone dipropionate)
- CC Biochemistry studies - Sterols and steroids 10067  
 Anatomy and Histology - Gross anatomy 11102  
 Pathology - Therapy 12512  
 Pharmacology - General 22002  
 Pharmacology - Connective tissue, bone and collagen-acting drugs 22012  
 Pharmacology - Endocrine system 22016
- IT Major Concepts  
 Methods and Techniques; Pharmacology
- IT Chemicals & Biochemicals  
 Eudragit E 100; Eudragit L 100; beclomethasone dipropionate;  
 antiinflammatory-drug, hormone-drug; corticosteroid;  
 hormone-drug; nanoparticles: crystallinity, drug-to-polymer  
 ratio, morphology, size, thermal behavior; polymeric  
 nanoparticles: preparation
- IT Methods & Equipment  
 aerosol flow reactor method: laboratory techniques
- RN 24938-16-7 (Eudragit E 100)  
 25086-15-1 (Eudragit L 100)  
 5534-09-8 (beclomethasone dipropionate)

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ACCESSION NUMBER: 2004:98944 BIOSIS Full-text  
 DOCUMENT NUMBER: PREV200400096427  
 TITLE: Preparation, characterization and evaluation of pH-responsive prednisolone microparticles.  
 AUTHOR(S): Kendall, R. A. [Reprint Author]; Basit, A. W. [Reprint Author]; Murdan, S. [Reprint Author]  
 CORPORATE SOURCE: Department of Pharmaceutics, The School of

## 10/537,467-310163-EIC SEARCH

Pharmacy, 29-39 Brunswick Square, London, WC1N 1AX, UK

SOURCE: Journal of Pharmacy and Pharmacology, (September 2003) Vol. 55, No. Supplement, pp. S.62. print.  
Meeting Info.: Science Proceedings of the British Pharmaceutical Conference. Harrogate, England, UK. September 15-17, 2003.  
CODEN: JPPMAB. ISSN: 0022-3573.

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
Conference; (Meeting Poster)

LANGUAGE: English

ENTRY DATE: Entered STN: 18 Feb 2004  
Last Updated on STN: 18 Feb 2004

SO Journal of Pharmacy and Pharmacology, (September 2003)  
Vol. 55, No. Supplement, pp. S.62. print.  
Meeting Info.: Science Proceedings of the British Pharmaceutical Conference. Harrogate, England, UK. September 15-17, 2003.  
CODEN: JPPMAB. ISSN: 0022-3573.

IT Methods & Equipment  
emulsification-solvent evaporation method: laboratory techniques; microencapsulation method: laboratory techniques

RN 25086-15-1 (Eudragit L100)  
25212-88-8 (Eudragit L100-55)  
25086-15-1 (Eudragit S100)  
50-24-8 (prednisolone)

CC General biology - Symposia, transactions and proceedings 00520  
Biochemistry studies - General 10060  
Biochemistry studies - Sterols and steroids 10067  
Pathology - Therapy 12512  
Pharmacology - General 22002

IT Major Concepts  
Biochemistry and Molecular Biophysics; Methods and Techniques; Pharmacology

IT Chemicals & Biochemicals  
Eudragit L100: characterization, evaluation, pH-responsive microparticles, preparation; Eudragit L100-55: characterization, evaluation, pH-responsive microparticles, preparation; Eudragit S100: characterization, evaluation, pH-responsive microparticles, preparation; prednisolone: pharmaceutical

IT Methods & Equipment  
emulsification-solvent evaporation method: laboratory techniques; microencapsulation method: laboratory techniques

RN 25086-15-1 (Eudragit L100)  
25212-88-8 (Eudragit L100-55)  
25086-15-1 (Eudragit S100)  
50-24-8 (prednisolone)

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ACCESSION NUMBER: 2004:401078 BIOSIS [Full-text](#)

DOCUMENT NUMBER: PREV200400401380

TITLE: Formulation and in-vitro release evaluation of topical tenoxicam preparations.

AUTHOR(S): Makky, A. M. A. [Reprint Author]

CORPORATE SOURCE: Fac PharmDept Pharmaceut, Cairo Univ, Cairo, Egypt

SOURCE: Egyptian Journal of Pharmaceutical Sciences, (2002) Vol. 43, No. 1-2, pp. 1-17. print.  
CODEN: EJPSB2. ISSN: 0301-5068.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 13 Oct 2004  
Last Updated on STN: 13 Oct 2004

AB Tenoxicam ointments (1%) were prepared using oleaginous, absorption, water in oil (W/O), oil in water (O/W) and water soluble ointment bases. Also, (0.5%) gel

formulations were prepared using the following gelling agents; eudispert hv, carbopol 934, hydroxyethylcellulose (HEC), poloxamer 407, sodium carboxymethylcellulose (NaCMC), methylcellulose 4000 (MC 4000) as well as an organogel composed of a mixture of Eudragit S 100 and propylene glycol (PG). The in-vitro release of tenoxicam from different ointment bases and gels was studied in Sorensen's phosphate buffer pH 7.4. Among the ointments, the water soluble base proved superior in release while for gels, the formula containing 25% poloxamer 407 achieved the best in-vitro drug release. The effect of certain additives and penetration enhancers, namely (5%) ethanol or Tween 80, on the release of drug from poloxamer 407 gel was studied. Both additives achieved a decrease in the release of the drug compared to the plain gel. Viscosity studies were performed to correlate the amount of tenoxicam released with the viscosity of poloxamer 407 gel bases. No correlation was found. 20% of 2-propanol hardly affected the release pattern of the drug from carbopol 934 gel while 5% dimethyl sulphoxide (DMSO) slightly retarded the release from eudispert by gel. The in-vitro release data of drug was treated kinetically. The release from ointments obeyed zero and first orders while the release from gels obeyed the diffusion mechanism. pH values of the formulae solutions were followed during the study and found suitable for topical use.

SO Egyptian Journal of Pharmaceutical Sciences, (2002) Vol.

43, No. 1-2, pp. 1-17. print.

CODEN: EJPSBZ. ISSN: 0301-5068.

IT Major Concepts

Pharmaceuticals (Pharmacology); Toxicology

IT Chemicals & Biochemicals

2-propanol; Eudragit S 100; Sorensen's phosphate buffer; alcohol; carbopol 934; dimethyl formamide; dimethyl sulfoxide; eudispert hv gel; fatty acids; hydroxyethylcellulose; lecithin; methylcellulose 4000; non-ionic surfactant; oil-in-water emulsion; phosphatidylglycerol; poloxamer 407; polysorbate 80; propylene glycol; propylene glycol solution; sodium carboxymethylcellulose; tenoxicam: analgesic-drug, antiinflammatory-drug, immunologic-drug, ointment, pharmacokinetics, release, topical administration, toxicity

RN 67-63-0 (2-propanol)

25086-i5-1 (Eudragit S 100)

64-17-5 (alcohol)

9007-16-3 (carbopol 934)

68-12-2 (dimethyl formamide)

67-68-5 (dimethyl sulfoxide)

9004-62-0 (hydroxyethylcellulose)

106392-12-5 (poloxamer 407)

9005-65-6 (polysorbate 80)

57-55-6 (propylene glycol)

9004-32-4 (sodium carboxymethylcellulose)

59804-37-4 (tenoxicam)

CC Biochemistry studies - General 10060

Biochemistry studies - Lipids 10066

Pathology - Therapy 12512

Pharmacology - General 22002

Pharmacology - Drug metabolism and metabolic stimulants 22003

Pharmacology - Connective tissue, bone and collagen-acting drugs 22012

Pharmacology - Immunological processes and allergy 22018

Pharmacology - Neuropharmacology 22024

Toxicology - General and methods 22501

Toxicology - Pharmacology 22504

IT Major Concepts

Pharmaceuticals (Pharmacology); Toxicology

IT Chemicals & Biochemicals

2-propanol; Eudragit S 100; Sorensen's phosphate buffer; alcohol; carbopol 934; dimethyl formamide; dimethyl sulfoxide; eudispert hv gel; fatty acids; hydroxyethylcellulose; lecithin; methylcellulose 4000; non-ionic surfactant; oil-in-water emulsion; phosphatidylglycerol; poloxamer 407; polysorbate 80; propylene glycol; propylene glycol solution; sodium carboxymethylcellulose; tenoxicam: analgesic-drug, antiinflammatory-drug, immunologic-drug, ointment, pharmacokinetics, release, topical administration, toxicity

IT Miscellaneous Descriptors  
content uniformity; diffusion mechanism; hydrophilic-lipophilic  
balance; oleaginous absorption; viscosity studies

RN 67-63-0 (2-propanol)  
25086-15-1 (Eudragit S 100)  
64-17-5 (alcohol)  
9007-16-3 (carbopol 934)  
68-12-2 (dimethyl formamide)  
67-68-5 (dimethyl sulfoxide)  
9004-62-0 (hydroxyethylcellulose)  
106392-12-5 (poloxamer 407)  
9005-65-6 (polysorbate 80)  
57-55-6 (propylene glycol)  
9004-32-4 (sodium carboxyme -thylcellulose)  
59804-37-4 (tenoxicam)

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ACCESSION NUMBER: 2001:341208 BIOSIS Full-text  
DOCUMENT NUMBER: PREV200100341208  
TITLE: Preparation and evaluation of ketoprofen floating  
oral delivery system.  
AUTHOR(S): El-Kamel, A. H.; Sokar, M. S.; Al Gamal, S. S.;  
Naggar, V. F. [Reprint author]  
CORPORATE SOURCE: Department of Pharmaceutics, Faculty of Pharmacy,  
University of Alexandria, Alexandria, Egypt  
pharmacy\_alex@hotmail.com  
SOURCE: International Journal of Pharmaceutics  
(Kidlington), (4 June, 2001) Vol. 220,  
No. 1-2, pp. 13-21. print.  
CODEN: IJPHDE. ISSN: 0378-5173.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 18 Jul 2001  
Last Updated on STN: 19 Feb 2002

AB A sustained release system for ketoprofen designed to increase its residence time in  
the stomach without contact with the mucosa was achieved through the preparation of  
floating microparticles by the emulsion-solvent diffusion technique. Four different  
ratios of Eudragit S100 (ES) with Eudragit RL (ERL) were used to form the floating  
microparticles. The drug retained in the floating microparticles decreased with  
increase in ERL content. All floating microparticle formulations showed good flow  
properties and packability. Scanning electron microscopy and particle size analysis  
revealed differences between the formulations as to their appearance and size  
distribution. X-ray and DSC examination showed the amorphous nature of the drug.  
Release rates were generally low in 0.1 N HCl especially in presence of high content of  
ES while in phosphate buffer pH 6.8, high amounts of ES tended to give a higher release  
rate. Floating ability in 0.1 N HCl, 0.1 N HCl containing 0.02% Tween 20 and simulated  
gastric fluid without pepsin was also tested. The formulation containing ES:ERL:1  
(FIII) exhibited high percentage of floating particles in all examined media.

SO International Journal of Pharmaceutics (Kidlington), (4 June,  
2001) Vol. 220, No. 1-2, pp. 13-21. print.  
CODEN: IJPHDE. ISSN: 0378-5173.

AB A sustained release system for ketoprofen designed to increase its residence time in  
the stomach without contact with the mucosa was achieved through the preparation of  
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microparticles. The drug retained in the floating microparticles decreased with  
increase in ERL content. All floating microparticle formulations showed good flow  
properties and packability. Scanning electron microscopy and particle size analysis  
revealed differences between the formulations as to their appearance and size  
distribution. X-ray and DSC examination showed the amorphous nature of the drug.  
Release rates were generally low in 0.1 N HCl especially in presence of high content of  
ES while in phosphate buffer pH 6.8, high amounts of ES tended to give a higher release  
rate. Floating ability in 0.1 N HCl, 0.1 N HCl containing 0.02% Tween 20 and simulated  
gastric fluid without pepsin was also tested. The formulation containing ES:ERL:1  
(FIII) exhibited high percentage of floating particles in all examined media.

IT Methods & Equipment

X-ray analysis: analytical method; differential scanning calorimetry: analytical method; emulsion-solvent diffusion technique: synthetic method; scanning electron microscopy: analytical method

- IT Miscellaneous Descriptors  
floating microparticle: drug delivery system; gastric fluid; stomach
- RN 33434-24-1 (Eudragit RL)  
25086-15-1 (Eudragit S100)  
22071-15-4 (ketoprofen)
- CC Pharmacology - Connective tissue, bone and collagen-acting drugs  
22012  
Biochemistry studies - General 10060  
Pathology - Therapy 12512  
Pharmacology - General 22002
- IT Major Concepts  
Pharmaceuticals (Pharmacology)
- IT Chemicals & Biochemicals  
Eudragit RL; Eudragit S100; ketoprofen: antiarthritic-drug, antiinflammatory-drug, delivery
- IT Methods & Equipment  
X-ray analysis: analytical method; differential scanning calorimetry: analytical method; emulsion-solvent diffusion technique: synthetic method; scanning electron microscopy: analytical method
- IT Miscellaneous Descriptors  
floating microparticle: drug delivery system; gastric fluid; stomach
- RN 33434-24-1 (Eudragit RL)  
25086-15-1 (Eudragit S100)  
22071-15-4 (ketoprofen)

L77 ANSWER 45 OF 48 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:291420 BIOSIS [Full-text](#)

DOCUMENT NUMBER: PREV200000291420

TITLE: Extrusion-spheronization of pH-sensitive polymeric matrix pellets for possible colonic drug delivery.  
Krogars, Karin [Reprint author]; Heinamaki, Jyrki; Vesalahti, Johanna; Marvola, Martti; Antikainen, Osmo; Yliruusi, Jouko

CORPORATE SOURCE: Department of Pharmacy, Division of Pharmaceutical Technology, University of Helsinki, FIN-00014, Helsinki, Finland

SOURCE: International Journal of Pharmaceutics (Kidlington), (April 20, 2000) Vol. 199, No. 2, pp. 187-194. print.  
CODEN: IJPHDE. ISSN: 0378-5173.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 6 Jul 2000

Last Updated on STN: 7 Jan 2002

- AB The aim of this study was to investigate extrusion-spheronization pelletization for preparing pH-sensitive matrix pellets for colon-specific drug delivery. The effects of three independent variables (amounts of Eudragit™ S, citric acid and spheronizing time) on pellet size, shape (roundness and aspect ratio), and drug release were studied with central composite design. The pellets contained ibuprofen as a model drug, citric acid as a pH-adjusting agent, Eudragit™ S as a pH-sensitive binder and microcrystalline cellulose (MCC). The pellets were prepared with Nica extrusion-spheronizing equipment and subsequently enteric-coated using an air-suspension technique. Eudragit™ S as a pH-sensitive matrix former in pellets increased the pellet size and influenced pellet roundness. In small amounts Eudragit™ S increased pellet roundness but in larger amounts pellet roundness was reduced. Citric acid promoted the pelletization process resulting in a narrower area distribution. The pH-sensitive matrix pellet failed to delay the drug release. The combination of citric acid and enteric coating, however, delayed the drug release for 15 min in a pH 7.4 phosphate buffer.



- SO International Journal of Pharmaceutics (Kidlington), (April 20, 2000) Vol. 199, No. 2, pp. 187-194. print.  
CODEN: IJPHDE. ISSN: 0378-5173.
- AB The aim of this study was to investigate extrusion-spheronization pelletization for preparing pH-sensitive matrix pellets for colon-specific drug delivery. The effects of three independent variables (amounts of Eudragit<sup>TM</sup> S, citric acid and spheronizing time) on pellet size, shape (roundness and aspect ratio), and drug release were studied with central composite design. The pellets contained ibuprofen as a model drug, citric acid as a pH-adjusting agent, Eudragit<sup>TM</sup> S as a pH-sensitive binder and microcrystalline cellulose (MCC). The pellets were prepared with Nica extrusion-spheronizing equipment and subsequently enteric-coated using an air-suspension technique. Eudragit<sup>TM</sup> S as a pH-sensitive matrix former in pellets increased the pellet size and influenced pellet roundness. In small amounts Eudragit<sup>TM</sup> S increased pellet roundness but in larger amounts pellet roundness was reduced. Citric acid promoted the pelletization process resulting in a narrower area distribution. The pH-sensitive matrix pellet failed to delay the drug release. The combination of citric acid and enteric coating, however, delayed the drug release for 15 min in a pH 7.4 phosphate buffer.
- RN 26589-39-9 (Eudragit S)  
77-92-9 (citric acid)  
9065-11-6 (EUDRAGIT S)
- CC Pharmacology - General 22002  
Biochemistry methods - General 10050  
Biochemistry studies - General 10060  
Digestive system - General and methods 14001
- IT Major Concepts  
Digestive System (Ingestion and Assimilation); Methods and Techniques; Pharmacology
- IT Parts, Structures, & Systems of Organisms  
colon: digestive system, drug delivery
- IT Chemicals & Biochemicals  
Eudragit S: pH-sensitive binder; citric acid: reagent;  
microcrystalline cellulose: reagent
- IT Methods & Equipment  
extrusion-spheronization: pharmaceutical method
- RN 26589-39-9 (Eudragit S)  
77-92-9 (citric acid)  
9065-11-6 (EUDRAGIT S)
- L77 ANSWER 46 OF 48 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
- ACCESSION NUMBER: 2000:186976 BIOSIS [Full-text](#)  
DOCUMENT NUMBER: PREV200000186976  
TITLE: Effect of formulation and processing variables on the characteristics of microspheres for water-soluble drugs prepared by w/o/o double emulsion solvent diffusion method.
- AUTHOR(S): Lee, Jung-Hwa; Park, Tae Gwan; Choi, Hoo-Kyun  
[Reprint author]
- CORPORATE SOURCE: College of Pharmacy, Chosun University, 375 Seoseok-dong, Dong-gu, 501-759, Kwangju, South Korea
- SOURCE: International Journal of Pharmaceutics (Amsterdam), (Feb. 25, 2000) Vol. 196, No. 1, pp. 75-83. print.  
CODEN: IJPHDE. ISSN: 0378-5173.
- DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 11 May 2000  
Last Updated on STN: 4 Jan 2002
- AB Water-soluble drugs were encapsulated within anionic acrylic resin (Eudragit(R) S100) microspheres by water in oil in oil (w/o/o) double emulsion solvent diffusion method. Dichloromethane and corn oil were chosen as primary and secondary oil phases, respectively. The presence of internal water phase was essential in forming stable emulsion droplets and it accelerated the hardening of microspheres. Tween 80 was used as a surfactant for stabilizing internal water phase and Span 80 was used for stabilizing corn oil phase. The optimum concentration of Tween 80 was 0.25% (v/v) and

that of Span 80 was above 0.02% (v/v). The temperature of continuous phase affected stability of emulsion and the morphology of microspheres. As the volume of continuous phase increased, the size of microspheres decreased. The loading efficiency was >80% except for acetaminophen, due to its lower solubility in water and higher solubility in corn oil. The release profile of the drug was pH dependent. In acidic medium, the release rate was much slower, however, the drug was released quickly at pH 7.4. Tacrine showed unexpected release profiles, probably due to ionic interaction with polymer matrix and the shell structure and the highest release rate was obtained at pH 2.0. The prepared microspheres had a sponge-like inner structure with or without central hollow core and the surface was dense with no apparent pores.

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- IT Methods & Equipment  
water in oil in oil double emulsion solvent diffusion  
method: synthetic method
- IT Miscellaneous Descriptors  
drug encapsulation; drug formulations; drug release; polymer  
matrix; processing variables; shell structure; tablet hardening
- RN 25086-15-1 (Eudragit S100)  
75-09-2 (dichloromethane)
- CC Pharmacology - General 22002  
Biochemistry methods - General 10050  
Biochemistry studies - General 10060
- IT Major Concepts  
Pharmaceuticals (Pharmacology)
- IT Chemicals & Biochemicals  
Eudragit S100: anionic acrylic resin; corn oil;  
dichloromethane; microspheres; water-soluble drugs
- IT Methods & Equipment  
water in oil in oil double emulsion solvent diffusion  
method: synthetic method
- IT Miscellaneous Descriptors  
drug encapsulation; drug formulations; drug release; polymer  
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- RN 25086-15-1 (Eudragit S100)  
75-09-2 (dichloromethane)

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ACCESSION NUMBER: 2000:10888 BIOSIS [Full-text](#)

DOCUMENT NUMBER: PREV200000010888

TITLE: Physico-chemical characterization of interactions  
between erythromycin and various film polymers.

AUTHOR(S): Sarisuta, N. [Reprint author]; Kumpugdee, M.;  
Mueller, B. W.; Puttipatkhachorn, S.

CORPORATE SOURCE: Department of Manufacturing Pharmacy, Faculty of

# 10/537,467-310163-EIC SEARCH

SOURCE: Pharmacy, Mahidol University, Bangkok, Thailand  
International Journal of Pharmaceutics (Amsterdam),  
(Sept. 20, 1999) Vol. 186, No. 2, pp.  
109-118. print.  
CODEN: IJPHDE. ISSN: 0378-5173.

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 23 Dec 1999  
Last Updated on STN: 31 Dec 2001

AB In this study the interactions between erythromycin and various polymers (Eudragit L100, shellac, polyvinyl acetate phthalate (PVAP), cellulose acetate phthalate (CAP), hydroxypropyl methylcellulose acetate phthalate (HPMCP), and hydroxypropyl methylcellulose (HPMC)) were investigated. The polymer films containing drugs were prepared and characterized by the use of infrared spectroscopy, powder X-ray diffraction analysis, thermal analysis, thin layer chromatography, and nuclear magnetic resonance (NMR) spectroscopy. Preliminary studies of pure drug powders recrystallized in various organic solvent systems suggested a mixture of amorphous and crystalline forms whereas those recrystallized in water and organic solvent-water mixture led to the dihydrate form. Erythromycin in drug-polymer mixtures exhibited molecular dispersions in all six polymers studied. The amine salt interaction between the carboxyl group of the acid polymers and N-atom of erythromycin was indicated by the NMR technique. The solid solution of erythromycin in all polymer films studied was physically stable under stress conditions (8degreeC/3 days and 40degreeC/3 days for six cycles).

SO International Journal of Pharmaceutics (Amsterdam), (Sept. 20, 1999) Vol. 186, No. 2, pp. 109-118. print.  
CODEN: IJPHDE. ISSN: 0378-5173.

AB In this study the interactions between erythromycin and various polymers (Eudragit L100, shellac, polyvinyl acetate phthalate (PVAP), cellulose acetate phthalate (CAP), hydroxypropyl methylcellulose acetate phthalate (HPMCP), and hydroxypropyl methylcellulose (HPMC)) were investigated. The polymer films containing drugs were prepared and characterized by the use of infrared spectroscopy, powder X-ray diffraction analysis, thermal analysis, thin layer chromatography, and nuclear magnetic resonance (NMR) spectroscopy. Preliminary studies of pure drug powders recrystallized in various organic solvent systems suggested a mixture of amorphous and crystalline forms whereas those recrystallized in water and organic solvent-water mixture led to the dihydrate form. Erythromycin in drug-polymer mixtures exhibited molecular dispersions in all six polymers studied. The amine salt interaction between the carboxyl group of the acid polymers and N-atom of erythromycin was indicated by the NMR technique. The solid solution of erythromycin in all polymer films studied was physically stable under stress conditions (8degreeC/3 days and 40degreeC/3 days for six cycles).

RN 25086-15-1 (Eudragit L100)  
9004-38-0 (cellulose acetate phthalate)  
114-07-8 (erythromycin)  
9004-65-3 (hydroxypropyl methylcellulose)

CC Pharmacology - General 22002  
Biochemistry studies - General 10060

IT Major Concepts  
Pharmaceuticals (Pharmacology)

IT Chemicals & Biochemicals  
Eudragit L100; cellulose acetate phthalate; erythromycin;  
hydroxypropyl methylcellulose; hydroxypropyl methylcellulose  
acetate phthalate; polyvinyl acetate phthalate; shellac

IT Miscellaneous Descriptors  
drug-polymer interactions

RN 25086-15-1 (Eudragit L100)  
9004-38-0 (cellulose acetate phthalate)  
114-07-8 (erythromycin)  
9004-65-3 (hydroxypropyl methylcellulose)

L77 ANSWER 48 OF 48 BIOSIS COPYRIGHT (c) 2009 The Thomson  
Corporation on STN

ACCESSION NUMBER: 1999:33500 BIOSIS Full-text

DOCUMENT NUMBER: PREV199900033500

TITLE: Design of a new multiparticulate system for  
potential site-specific and controlled drug

delivery to the colonic region.  
 AUTHOR(S): Rodriguez, Marta; Vila-Jato, Jose L.; Torres, Dolores [Reprint author]  
 CORPORATE SOURCE: Dep. Pharmaceutical Technology, Faculty Pharmacy, Univ. Santiago Compostela, 15706-Santiago, Compostela, Spain  
 SOURCE: Journal of Controlled Release, (Oct. 30, 1998) Vol. 55, No. 1, pp. 67-77. print. CODEN: JCREEC. ISSN: 0168-3659.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 3 Feb 1999  
 Last Updated on STN: 3 Feb 1999

AB A multiparticulate dosage form consisting of a hydrophobic core coated with a pH-dependent polymer is proposed for colonic specific delivery of drugs. Different approaches for colon-specific drug delivery have been studied over the last decade, including prodrugs, polymeric coating using pH-sensitive or bacterial degradable polymers and matrices. In this work, we present a new multiparticulate system to deliver active molecules to the colonic region, which combines pH-dependent and controlled drug release properties. This system was constituted by drug loaded cellulose acetate butyrate (CAB) microspheres coated by an enteric polymer (Eudragit S). Both, CAB cores and pH-sensitive microcapsules, were prepared by the emulsion-solvent evaporation technique in an oily phase. Ondansetron (OS) and budesonide (BDS), two interesting drugs with a potentially new application for the local treatment of intestinal disorders, were efficiently microencapsulated in CAB microspheres at different polymer concentrations (6 and 8%). These hydrophobic cores (about 60 and 110  $\mu$ m in size, respectively) were then microencapsulated with Eudragit S, resulting in multinucleated structures, except in the case of BDS-CAB microspheres prepared at 8% CAB concentration, in which more mononucleated microcapsules were obtained. The *in vitro* drug release studies of pH-sensitive microcapsules containing the hydrophobic cores showed that no drug was released below pH 7. After that, CAB microspheres efficiently controlled the release of BDS, the release behavior being affected by the different polymer concentration used in their preparation. However, OS-CAB microspheres did not maintain their controlled-release properties once the enteric polymer dissolved. The extraction of the drug by the Eudragit solvent during the second microencapsulation process was in this case the cause for the failure of the controlling release mechanism.

SO Journal of Controlled Release, (Oct. 30, 1998) Vol. 55, No. 1, pp. 67-77. print. CODEN: JCREEC. ISSN: 0168-3659.

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RN 51333-22-3 (budesonide)  
 9004-36-8 (cellulose acetate butyrate)  
 99614-02-5 (ondansetron)

# 10/537,467-310163-EIC SEARCH

26589-39-9 (Eudragit S)  
 9065-11-6D (EUDRAGIT S)  
 CC Pharmacology - General 22002  
 Biochemistry studies - General 10060  
 Digestive system - General and methods 14001  
 IT Major Concepts  
 Digestive System; Pharmacology  
 IT Parts, Structures, & Systems of Organisms  
 colon: digestive system  
 IT Chemicals & Biochemicals  
 budesonide: gastrointestinal-drug, release; cellulose acetate  
 butyrate: microspheres; ondansetron: gastrointestinal-drug,  
 release; Eudragit S: enteric polymer  
 IT Miscellaneous Descriptors  
 controlled drug delivery; multiparticulate dosage form: drug  
 delivery system; pH effect  
 RN 51333-22-3 (budesonide)  
 9004-36-8 (cellulose acetate butyrate)  
 99614-02-5 (ondansetron)  
 26589-39-9 (Eudragit S)  
 9065-11-6D (EUDRAGIT S)

FULL SEARCH HISTORY

=&gt; d his nofile

(FILE 'HOME' ENTERED AT 13:58:04 ON 01 OCT 2009)

FILE 'HCAPLUS' ENTERED AT 13:58:10 ON 01 OCT 2009

E US20060116290/PN

L1 1 SEA SPE=ON ABB=ON PLU=ON US20060116290/PN  
D ALL  
SEL RN

FILE 'REGISTRY' ENTERED AT 13:59:44 ON 01 OCT 2009

L2 24 SEA SPE=ON ABB=ON PLU=ON (117428-22-5/BI OR  
131860-33-8/BI OR 153719-23-4/BI OR 155569-91-8/BI OR  
1897-45-6/BI OR 478813-84-2/BI OR 478813-85-3/BI OR  
478813-86-4/BI OR 478813-89-7/BI OR 478813-93-3/BI OR  
478813-94-4/BI OR 478813-97-7/BI OR 478813-99-9/BI OR  
478932-53-5/BI OR 709672-75-3/BI OR 709672-76-4/BI OR  
709672-77-5/BI OR 709672-78-6/BI OR 709673-62-1/BI OR  
709673-65-4/BI OR 709673-68-7/BI OR 709673-70-1/BI OR  
709673-72-3/BI OR 71751-41-2/BI)  
D SCA

FILE 'STNGUIDE' ENTERED AT 14:00:07 ON 01 OCT 2009

FILE 'REGISTRY' ENTERED AT 14:05:20 ON 01 OCT 2009

L3 0 SEA SPE=ON ABB=ON PLU=ON L2 AND SI/ELS

FILE 'LREGISTRY' ENTERED AT 14:06:54 ON 01 OCT 2009

L4 STR

FILE 'REGISTRY' ENTERED AT 14:19:02 ON 01 OCT 2009

L5 50 SEA SSS SAM L4

FILE 'LREGISTRY' ENTERED AT 14:20:23 ON 01 OCT 2009

L6 STR

FILE 'REGISTRY' ENTERED AT 14:32:12 ON 01 OCT 2009

L7 50 SEA SSS SAM L6  
L8 SCR 2043  
L9 50 SEA SSS SAM L6 AND L8  
D QUE STAT L5  
L10 50 SEA SSS SAM L4 AND L8  
L11 92835 SEA SSS FUL L4 AND L8  
SAV TEMP L11 KAU467REG/A  
L12 50 SEA SUB=L11 SSS SAM L6  
L13 17 SEA SPE=ON ABB=ON PLU=ON L2 AND L11  
L14 40884 SEA SUB=L11 SSS FUL L6  
SAV TEMP L14 KAU467REGA/A  
L15 10 SEA SPE=ON ABB=ON PLU=ON L2 AND L14

FILE 'LREGISTRY' ENTERED AT 14:38:56 ON 01 OCT 2009

L16 STR

FILE 'REGISTRY' ENTERED AT 14:58:51 ON 01 OCT 2009

L17 22 SEA SUB=L14 SSS SAM L16  
L18 588 SEA SUB=L14 SSS FUL L16  
SAV TEMP L18 KAU467REGB/A  
L19 5 SEA SPE=ON ABB=ON PLU=ON L2 AND L18  
D SCA  
D QUE STAT

FILE 'LREGISTRY' ENTERED AT 15:01:52 ON 01 OCT 2009

L20 STR  
L21 STR L20

## 10/537,467-310163-EIC SEARCH

D QUE L6  
 D QUE L5  
 D QUE L16  
 D QUE L20  
 D QUE L21  
 L22 STR L21  
 L23 STR L16

FILE 'REGISTRY' ENTERED AT 15:18:26 ON 01 OCT 2009  
 L24 50 SEA SUB=L14 SSS SAM L23  
 L25 37140 SEA SUB=L14 SSS FUL L23  
 D QUE STAT  
 L26 7 SEA SPE=ON ABB=ON PLU=ON L25 AND L2  
 SAV TEMP L25 KAU467REGC/A  
 L27 0 SEA SUB=L11 SSS SAM L20 AND L21 AND L22  
 D QUE STAT  
 D QUE STAT  
 L28 0 SEA SUB=L11 SSS FUL L20 AND L21 AND L22  
 D QUE STAT  
 L29 11 SEA SUB=L11 SSS SAM L20 AND L22  
 L30 199 SEA SUB=L11 SSS FUL L20 AND L22  
 SAV TEMP L30 KAU467REGD/A  
 L31 5 SEA SPE=ON ABB=ON PLU=ON L2 AND L30  
 D SCA  
 D QUE L22  
 D QUE L21

FILE 'STNGUIDE' ENTERED AT 17:04:38 ON 01 OCT 2009

FILE 'REGISTRY' ENTERED AT 17:11:18 ON 01 OCT 2009  
 D L33 FIDE  
 D QUE STAT L30  
 D QUE L21  
 D QUE STAT L30  
 D QUE L21  
 L32 0 SEA SUB=L30 SSS SAM L21

FILE 'LREGISTRY' ENTERED AT 17:22:08 ON 01 OCT 2009  
 L33 STR L21

FILE 'REGISTRY' ENTERED AT 17:23:42 ON 01 OCT 2009  
 L34 0 SEA SUB=L30 SSS SAM L33  
 L35 0 SEA SUB=L11 SSS SAM L20 AND L22 AND L33  
 L36 2 SEA SUB=L11 SSS SAM L21  
 D SCA  
 L37 30 SEA SUB=L11 SSS FUL L21  
 SAV TEMP L37 KAU467REGE/A  
 L38 0 SEA SPE=ON ABB=ON PLU=ON L37 AND L30  
 L39 1 SEA SPE=ON ABB=ON PLU=ON L2 AND L37  
 D SCA  
 L40 11 SEA SPE=ON ABB=ON PLU=ON L37 AND L25  
 D SCA

FILE 'HCAPLUS' ENTERED AT 17:27:30 ON 01 OCT 2009  
 D SCA L1  
 L41 2 SEA SPE=ON ABB=ON PLU=ON L39  
 D SCA  
 L42 3 SEA SPE=ON ABB=ON PLU=ON L40  
 L43 64 SEA SPE=ON ABB=ON PLU=ON L37  
 D L1 PRAI  
 L44 64 SEA SPE=ON ABB=ON PLU=ON (L41 OR L42 OR L43)  
 L45 312637 SEA SPE=ON ABB=ON PLU=ON AGROCHEM7/SC, SX  
 L46 2 SEA SPE=ON ABB=ON PLU=ON L43 AND L45  
 L47 2 SEA SPE=ON ABB=ON PLU=ON L31  
 L48 113 SEA SPE=ON ABB=ON PLU=ON L30  
 L49 2 SEA SPE=ON ABB=ON PLU=ON L26  
 L50 37641 SEA SPE=ON ABB=ON PLU=ON L25

# 10/537,467-310163-EIC SEARCH

L51 4 SEA SPE=ON ABB=ON PLU=ON L48 AND L45  
 L52 284 SEA SPE=ON ABB=ON PLU=ON L50 AND L45  
 D QUE  
 L53 2 SEA SPE=ON ABB=ON PLU=ON L49 AND L45  
 L54 4 SEA SPE=ON ABB=ON PLU=ON (L46 OR L47) OR L51 OR L53  
 L55 QUE SPE=ON ABB=ON PLU=ON SUSPEN? OR DISPERS? OR  
 COLLOID? OR EMULS? OR MICROEMULS? OR SLURR?  
 L56 121 SEA SPE=ON ABB=ON PLU=ON L52 AND L55  
 L57 QUE SPE=ON ABB=ON PLU=ON AQUEOUS OR (WATER OR  
 H2O) (2A) SOLUBLE  
 L58 49 SEA SPE=ON ABB=ON PLU=ON L56 AND L57  
 D QUE  
 L59 52 SEA SPE=ON ABB=ON PLU=ON L54 OR L58  
 L60 QUE SPE=ON ABB=ON PLU=ON PY=<2003 NOT P/DT  
 L61 1 SEA SPE=ON ABB=ON PLU=ON L59 AND L60  
 L62 QUE SPE=ON ABB=ON PLU=ON (PY=<2003 OR PRY=<2003 OR  
 AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT  
 L63 34 SEA SPE=ON ABB=ON PLU=ON L58 AND L62  
 L64 35 SEA SPE=ON ABB=ON PLU=ON L63 OR L61  
 SAV TEMP L64 KAU467HCP/A  
 L65 1 SEA SPE=ON ABB=ON PLU=ON L64 AND L54  
 D SCA  
 L66 4 SEA SPE=ON ABB=ON PLU=ON L65 OR L54  
 D SCA  
 L67 34 SEA SPE=ON ABB=ON PLU=ON L64 NOT L66  
 SAV TEMP L66 KAU467HCPA/A  
 SAV TEMP L67 KAU467HCPB/A

FILE 'REGISTRY' ENTERED AT 17:43:16 ON 01 OCT 2009

L68 229 SEA SPE=ON ABB=ON PLU=ON L39 OR L40 OR L37 OR L31  
 OR L30  
 L69 37267 SEA SPE=ON ABB=ON PLU=ON L68 OR L25 OR L15  
 L70 18 SEA SPE=ON ABB=ON PLU=ON L69 AND (AGRICOLA/LC OR  
 BIOSIS/LC OR EMBASE/LC)

FILE 'AGRICOLA, BIOSIS, EMBASE' ENTERED AT 17:46:29 ON 01 OCT 2009

L71 161 SEA SPE=ON ABB=ON PLU=ON L70  
 L72 24 SEA SPE=ON ABB=ON PLU=ON L71 AND L55  
 L73 10 SEA SPE=ON ABB=ON PLU=ON L72 AND L60  
 L74 0 SEA SPE=ON ABB=ON PLU=ON L72 AND L62  
 L75 10 SEA SPE=ON ABB=ON PLU=ON L73 OR L74  
 SAV TEMP L75 KAU467MULT/A

FILE 'HCAPLUS' ENTERED AT 17:48:56 ON 01 OCT 2009

L76 38 SEA SPE=ON ABB=ON PLU=ON L66 OR L67  
 D QUE L76  
 D QUE L75  
 D QUE L75

FILE 'HCAPLUS, BIOSIS' ENTERED AT 17:50:21 ON 01 OCT 2009

L77 48 DUP REM L76 L75 (0 DUPLICATES REMOVED)  
 ANSWERS '1-38' FROM FILE HCAPLUS  
 ANSWERS '39-48' FROM FILE BIOSIS  
 D L77 1-38 IBIB ED ABS HITSTR HITIND  
 D L77 39-48 IBIB AB HIT IND